

Vacuum-System Components

— Contents —

Description	Page
AirStar DSL.....	2-3
AirStar DSL Motor Pulley Kits.....	3
Airtech RGB.....	33
Distribution Tanks, Vertical & Horizontal, 30 & 40 Gallons	30
Exhaust Check Valve.....	31
Interceptor	31
Oiler Assemblies & Oil Reclaimer.....	19-20
PVC Check Valve & PVC Vacuum Filter	32
Vacuum Pump:	
Air-Star Models BP-100 - 500 & Pump Assemblies.....	4-6
BGM 3 - BGM 4 PUMP REPLACEMENT KITS.....	9
BGM 3\BGM 4 PUMPS	8
BGM 5\BGM 5+ PUMPS	7
DB-2000, DB-2000 II & DB-3000.....	18
FR2, FR3 & FR4	13-14
FR3A & FR4A	15
VP Series.....	17
Vacuum Regulator:	
BouVac 1500, 5000, 10000	24-25
Dari-Vac 159 & 106.....	26
Model BVR-500	28
Models BVR-180 & 215	29
Sentinel Models 100, 350, 500 & Mark II.....	27
Vacuum Supplier:	
BGM 3 Assembly	10
BGM 4 Assembly	11
BGM 5 - BGM 5+ Asembly	12
FR3A & FR4A Direct-Drive & Coupling.....	16
Variable Speed Drive Control Assemblies	22-23

AirStar DSL

ITEM	PART NO.	⊗=OBSOLETE n/s=NOT SHOWN	DESCRIPTION	QTY REQUIRED (a/r=As Required)				
	8582767		BLOWER PKG,BP-140, 5/7.5HP, W/O MTR,DSL, Vertical	2767	-	-	-	-
	8582765		BLOWER PKG,BP-200, 7.5/10Hp, W/O MTR,DSL, Vertical	-	2765	-	-	-
	8582766		BLOWER PKG,BP-400, 15/20Hp, W/O MTR,DSL, Vertical	-	-	2766	-	-
	8586257		KIT,PUMP,BP500 DSL,25 HP, Horizontal (not assembled)	-	-	-	6257	-
	8586258		KIT,PUMP,BP500 DSL,30 HP, Horizontal (not assembled)	-	-	-	-	6258
			Description with manufacturer number prior to 2020:					
1	8582621		Pump Assy, Air-Star, BP140, 4H, DSL, GACHDRD 0400	1	-	-	-	-
	8582622		Pump Assy, Air-Star, BP200, 5H, DSL, GAEHDRD 0400	-	1	-	-	-
	8582623		Pump Assy, Air-Star, BP400, 5M, DSL, GAEMDRD 0400	-	-	1	-	-
	8582624		Pump Assy, Air-Star, BP500, 6M, DSL, GAFMDRD 0400	-	-	-	1	1
			Description with manufacturer number after 2019:					
	8582621		Pump Assy, Air-Star, BP140, 4H, DSL, GACHDSD 0235	1	-	-	-	-
	8582622		Pump Assy, Air-Star, BP200, 5H, DSL, GAEHDRD 0235	-	1	-	-	-
	8582623		Pump Assy, Air-Star, BP400, 5M, DSL, GAEMDRD 0235	-	-	1	-	-
	8582624		Pump Assy, Air-Star, BP500, 6M, DSL, GAFMDRD 0235	-	-	-	1	1
2	8591505	n/s	Overhaul Kit, DSL, BP140	1	-	-	-	-
	8591506	n/s	Overhaul Kit, DSL, BP200, 400	-	1	1	-	-
	8591507	n/s	Overhaul Kit, DSL, BP500	-	-	-	1	1
	8586253	⊗	n/s KIT,OVHL,4H/4M/BP140 DSL (Rpl by 8591505)	-	-	-	-	-
	8586255	⊗	n/s KIT,OVHL,5H/5M/BP200/BP400 DSL (Rpl by 8591506)	-	-	-	-	-
			Kit includes: 4 Bearings; 4 lip Seals; 4 Gaskets (R and S series), 1 Gear Case Oil Seal; 4 Screws; 2 0.0015 Shims. When replacing the case gaskets, be sure to match the old ones to the new ones to ensure the correct gasket is used.					
3	8586254 ¹	⊗	n/s Gasket, 4H/4M, BP 140 DSL	2	-	-	-	-
	8586256 ¹	⊗	n/s Gasket, 5H/5M, BP200/BP400 DSL	-	2	2	-	-
4	8504117		SILENCER,2.50	1	1	-	-	-
	8504118		SILENCER,4.00	-	-	1	-	-
	2210478		SILENCER, 5" NPT, BAFFLED, 6M	-	-	-	1	1
5	8515466		COUPLING ASSY,2-1/2 FLEX	1	1	-	-	-
	8515467		COUPLING ASSY,4 FLEX	-	-	1	-	-
	8595265		COUPLING ASSY,5 FLEX	-	-	-	1	1
6	8518296		PULLEY,DBL-GRV,4.7 PD	2	-	-	-	-
	4019474		PULLEY,DBL-GRV, 6.2 PD	-	1	-	-	-
	8519284		PULLEY,DBL-GRV, 8.0 PD	-	-	1	-	-
	8502464		PULLEY,TPL-GRV,8.0 PD	-	-	-	1	1
7	8518299		BUSHING,TAPERED, 7/8 BORE	1	-	-	-	-
	4019475		BUSHING,TAPERED,1-1/8 BORE	-	1	-	-	-
	8519331		BUSHING,TAPERED,1-1/8 BORE	-	-	1	-	-
	8518143		BUSHING,TAPERED,1-3/8 BORE	-	-	-	1	1
8	8516146 ^{2 3}		Plug, Sight, 3/8 NPT	1	1	1	1	1
9	8502620	n/s	Plug, Vent, Vac Pump, 5-20HP	1	1	1	-	-
	8594471	n/s	Plug, Vent, Vac Pump, 25HP	-	-	-	1	1
10	8553787		OIL,VAC-PUMP, 1 GAL,AIR-STAR (US)	a/r	a/r	a/r	a/r	a/r
11	8591502	n/s	AirStar Luricant 5 Liters (Europe)	a/r	a/r	a/r	a/r	a/r
12	8523848		Revitalobe, 4x1, Gal	a/r	a/r	a/r	a/r	a/r
	8523849		Revitalobe, 5 Gal	a/r	a/r	a/r	a/r	a/r
	8524337		REVITALOBE, 55 GAL	a/r	a/r	a/r	a/r	a/r
13	4086007		Kit, Flush & Vac Tap	1	1	1	1	1
14	8594238	n/s	Breather, Crankcase, DSL	a/r	a/r	a/r	a/r	a/r

1. Gasket included in overhaul Kit

2. Sight Plugs not included with Pump assemblies. Sight Plugs are included with Blow Packages.

3. When using 3/8" sight plug (item 7, 8516146) on a 25HP (8582624), a 3/8" x 1/2" reducer is required.

AirStar DSL (Cont.)

SECTION A	PAGE 3
EFFECTIVE: 2/12/20	



AirStar DSL Motor Pulley Kits

ITEM	PART NO.	⊗=OBSOLETE n/s=NOT SHOWN	DESCRIPTION	QTY REQUIRED (a/r=As Required)				
DSL Motor Pulley Kits W/O VSVP								
	8518111		KIT,PULLEY,BP-140, 7.5 HP	8111				
	8502367		KIT, PULLEY, BP-200, 7.5HP ?		2367			
	8519334		KIT,PULLEY,BP-400,20 HP			9334		
DSL Motor Pulley Kits W/ VSVP								
	8502404		KIT,PULLEY,VSVP,BP-140,7.5-10			2404		
	8502405		KIT,PULLEY,VSVP,BP-200,10-15HP				2405	
	8502406		KIT,PULLEY,VSVP,BP-400,15-20HP				2406	
	8502407		KIT,PULLEY,VSVP,BP-500,25-30HP					2407
1	8513636		BELT,V,1 MATCHED PAIR,A-54	-	-	-	1	-
	8518105		BELT,V,1 MATCHED PAIR,A-58	1	-	-	-	-
	8502369		BELT,V,1 MATCHED PAIR,A-67	-	1	-	-	-
	8553463		BELT,V,1 MATCHED PAIR,B-68	-	-	-	-	1
	8519327		BELT,V,1 MATCHED PAIR,B-73	-	-	-	-	1
	8519328		BELT,V,1 MATCHED PAIR,B-76	-	-	1	-	-
2	8502368		PULLEY,DBL-GRV, 5.0 PD	-	1	-	-	-
	8513647		PULLEY,DBL-GRV, 6.0 PD	-	-	-	1	-
	8504136		PULLEY,DBL-GRV, 7.0 PD	-	-	-	-	1
	8518106		PULLEY,DBL-GRV, 8.0 PD	1	-	-	-	1
	8519330		PULLEY,DBL-GRV, 9.4 PD	-	-	-	-	1
	8519818		PULLEY,DBL-GRV,11.0 PD	-	-	1	-	-
3	8515957		BUSHING,1.38,SPLIT TAPER	1	-	-	1	-
	8519882		BUSHING,TAPERED,1-1/8 BORE	1	1	-	1	-
	8518143		BUSHING,TAPERED,1-3/8 BORE	-	-	-	-	1
	8518142		BUSHING,TAPERED,1-5/8 BORE	-	-	1	-	1
	8502465		BUSHING,TAPERED,1-7/8 BORE	-	-	-	-	1



Air-Star Vacuum Pumps BP-100, 140, 200, 400, 500

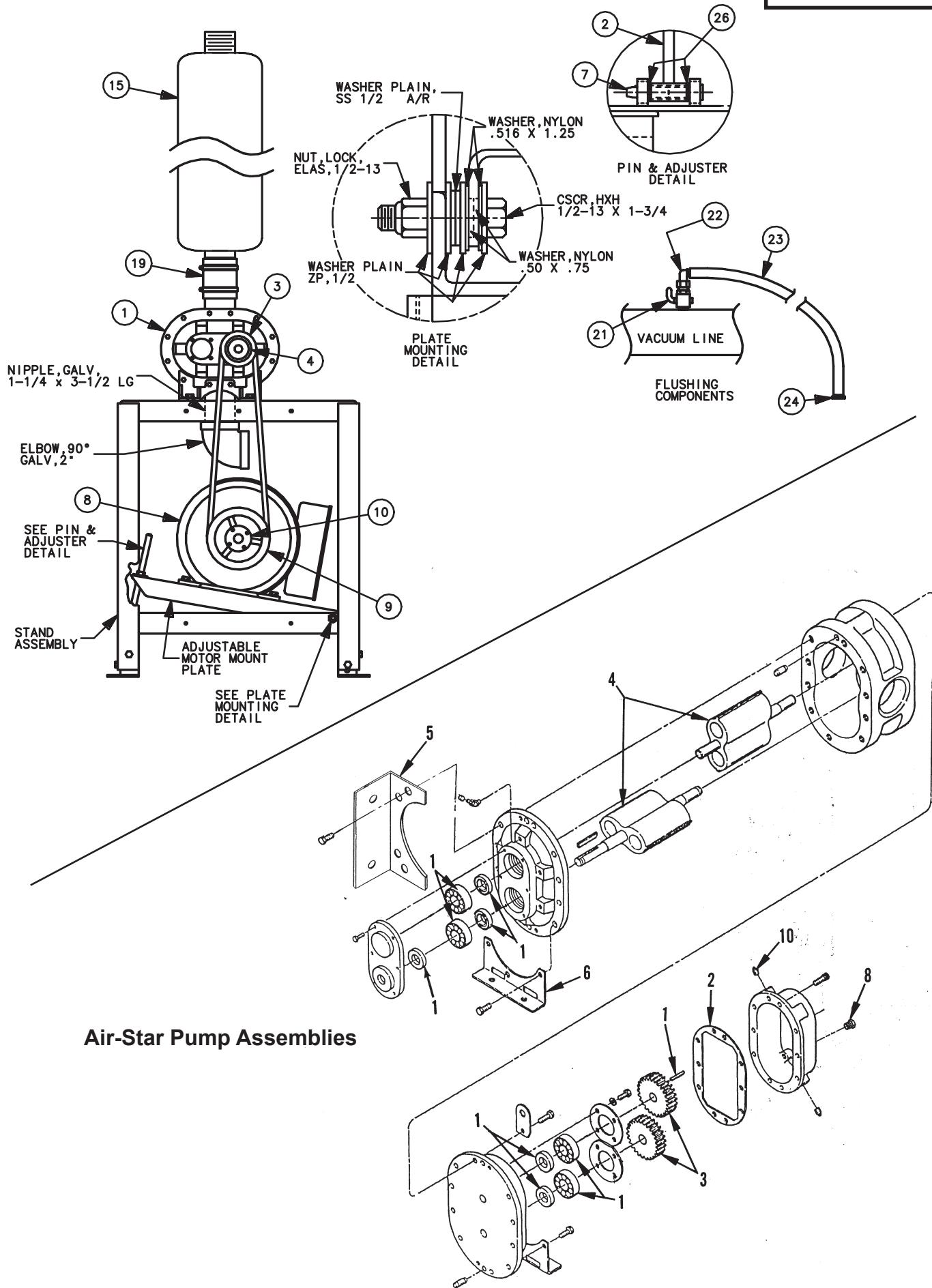
ITEM	PART NO.	⊗=OBSOLETE n/s=NOT SHOWN	DESCRIPTION	QTY REQUIRED (a/r=As Required)							
	8518117	⊗	Blower Pkg, BP-100, w/Motor	117							
	8518125	⊗	Blower Pkg, BP-100, w/o Motor		125						
	8518119	⊗	Blower Pkg, BP-140, w/Motor			119					
	8518118	⊗	Blower Pkg, BP-140, w/o Motor				118				
	8518120	⊗	Blower Pkg, BP-200, w/o Motor					120			
	8518121	⊗	Blower Pkg, BP-200, w/o Motor						121		
	8518124	⊗	Blower Pkg, BP-500							124	
1	8517750	⊗	Pump Assy,Air-Star,5 Hp	1	1	-	-	-	-	-	
	8517751	⊗	Pump Assy,Air-Star,7.5 Hp	-	-	1	1	-	-	-	
	8517752	⊗	Pump Assy,Air-Star,10 Hp	-	-	-	-	1	-	-	
	8517753	⊗	Pump Assy,Air-Star,15-20 Hp	-	-	-	-	-	1	-	
	8517754	⊗	Pump Assy,Air-Star,25 Hp (parts on page A64)	-	-	-	-	-	-	1	
2	8509927		Adjuster, Belt Tension	2	2	2	2	2	2	-	
3	8518112	⊗	Pulley, Dbl-Grv, 3.2 PD	1	1	-	-	-	-	-	
	8518296		Pulley, Dbl-Grv, 4.7 PD	-	-	1	1	-	-	-	
	4019474		Pulley, Dbl-Grv, 6.2 PD	-	-	-	-	1	-	-	
	8519284		Pulley, Dbl-Grv, 8.0 PD	-	-	-	-	-	1	-	
4	8518595	⊗	Bushing, Tapered, 3/4 Bore	1	1	-	-	-	-	-	
	8518299		Bushing, Tapered, 7/8 Bore	-	-	1	1	-	-	-	
	4019475		Bushing, Tapered, 1-1/8 Bore	-	-	-	-	1	-	-	
	8519331		Bushing, Tapered, 1-1/8 Bore	-	-	-	-	-	1	-	
5	8519319	⊗	n/s	Guard, Belt, Outer	1	1	1	1	-	-	-
	8581543		n/s	Guard, Belt, Outer, Lrg	-	-	-	-	1	1	-
6	8518114	⊗	n/s	Guard, Belt, Inner (Replaced by 8582537)	1	1	1	1	-	-	-
	8582537	⊗	n/s	Guard, Belt, Inner	1	1	1	1	-	-	-
	8582314	⊗	n/s	Guard, Belt, Inner, BP-200/400	-	-	-	-	1	1	-
7	8518298		Pin, Clevis, .50 x 3.00, Self Lock	2	2	2	2	2	2	-	
8	141845		Motor, 5Hp/1Ph 208-230V 1800RP	1	-	-	-	-	-	-	
	8505733	⊗	Motor, 5Hp, 1Ph, 230V, 60Hz	1	-	-	-	-	-	-	
	8505730		Motor, 7.5Hp, 1Ph, 230V, 60Hz	-	-	1	-	-	-	-	
9	8513647		Pulley, Dbl-Grv, 6.00 PD	1	-	-	-	-	-	-	
	8518106		Pulley, Dbl-Grv, 8.00 PD	-	-	1	-	-	-	-	
10	8519882		Bushing, Tapered, 1-1/8 Bore	1	-	1	-	-	-	-	
11	8518109		Belt, V, Matched, A-49	2	-	-	-	-	-	-	
	8518105		Belt, V, Matched, A-58	-	-	2	-	-	-	-	
	8553463		Belt, V, Matched, B-68	-	-	-	-	2	-	-	
	8519327		Belt, V, Matched, B-73 (15Hp)	-	-	-	-	-	2	-	
	8519328		Belt, V, Matched, B-76 (20Hp)	-	-	-	-	-	or 2	-	
12	8506169	(n/s)	Label, Bou-Matic, 3.0 x 10.00	1	1	1	1	1	1	-	
13	8518046	(n/s)	Label, Warning, Belt Guard	1	1	1	1	1	1	-	
14	9ES-638		Installation Instructions	ref	ref	ref	ref	ref	ref	ref	
15	8504117		Silencer, 2.50	1	1	1	1	1	-	-	
	8504118		Silencer, 4.00	-	-	-	-	-	1	-	
	8504119	⊗	Silencer, 5.00	-	-	-	-	-	-	1	
16	8553787	(n/s)	Oil, Vac-Pump, 1 Gal, Air-Star	a/r	a/r	a/r	a/r	a/r	a/r	a/r	
17	8507413	(n/s)	Grease, Bearing, Hi-Temp, Cart	a/r	a/r	a/r	a/r	a/r	a/r	a/r	
18	8516260 ¹		Wshr, Nylon, .50 x .75 x .09	4	4	4	4	4	4	4	
19	8515466		Coupling Assy, 2.5 Flex	1	1	1	1	1	-	-	
	8515467		Coupling Assy,4 Flex	-	-	-	-	-	1	-	
	8595265		Coupling Assy,5 Flex	-	-	-	-	-	-	1	
20	8502627	⊗	(n/s)	Filter, EMI, 3 Phase, Vacuum	a/r	a/r	a/r	a/r	a/r	a/r	
21	8516147		Valve, Air, Shutoff, 1/4 NPT	1	1	1	1	1	1	-	
22	8514258		Elbow, 90, Nyl, 1/4 NPT x .19 Hose	1	1	1	1	1	1	-	
23	8505028		Hose, Vinyl, .19 x 72.00	1	1	1	1	1	1	-	
24	4020479		Plug, Int, Plstc, 0.19	1	1	1	1	1	1	-	
25	8502404	(n/s)	Kit, Pulley, VSVP, BP-140, 7.5-10	-	-	1	1	-	-	-	
	8502405	(n/s)	Kit, Pulley, VSVP, BP-200, 10-15Hp	-	-	-	-	1	-	-	
	8502406	(n/s)	Kit, Pulley, VSVP, BP-400, 15-20Hp	-	-	-	-	1	-	-	
	8502407	(n/s)	Kit, Pulley, VSVP, BP-500, 25-30Hp	-	-	-	-	-	-	1	
			(Kits for use with variable speed vacuum pump controller.)								
26	8509929		Bushing, Acetal, FLG, .50 ID	4	4	4	4	4	4	-	
27	8510161	(n/s)	Kit, Motor Plate Isolation	1	1	1	1	1	1	-	

(Includes items 2 & 6 plus nylon pivot washers)

Note: 1. Washer added to newer version pump assemblies along with 1/2" stainless steel washers (spacers) to reduce vibration.

Air-Star Vacuum Pumps BP-100, 140, 200, 400, 500 (Cont.)

SECTION A	PAGE 5
EFFECTIVE: 5/13/16	



Air-Star Pump Assemblies (Cont.)

ITEM	PART NO.	⊗=OBSOLETE n/s=NOT SHOWN	DESCRIPTION	QTY REQUIRED (a/r=As Required)								
	8517750	⊗	Pump Assy,Air-Star,5 Hp	7750								
	8517751	⊗	Pump Assy,Air-Star,7.5 Hp		7751							
	8517752	⊗	Pump Assy,Air-Star,10 Hp			7752						
	8517753	⊗	Pump Assy,Air-Star,15-20 Hp				7753					
	8517754	⊗	Pump Assy,Air-Star,25 Hp					7754				
	8518295		Pump,5-7.5 Hp, BP-140, 4H						8295			
	2210220		Pump, 7.5 - 10 Hp							0220		
	8518597		Pump 7.5 - 10 Hp, BP-200, 5H								8597	
	8519099		Pump, 15 - 20 Hp, BP-400, 5M									9099
	8518122		Pump, 25 - 30 Hp, BP-500, 6M									8122
1	8515438	⊗	Kit, Overhaul, BP-100	1	-	-	-	-	-	-	-	-
	8515439		Kit, Overhaul, BP-140	-	1	-	-	-	1	1	-	-
	8515440		Kit, Overhaul, BP-200 & BP-400	-	-	1	1	-	-	1	1	-
	8515441		Kit, Overhaul, BP-500	-	-	-	-	1	-	-	-	1
	<i>All include the following: 4 Bearings; 4 Lip Seals; 1 Gasket, Gear Case (Item 2); 2 Taper Pins; 1 Drive Seal; 2 Shim .0015/.0020; 2 Shim .003</i>											
2	8518896	⊗	Gasket, BP-100, 5 Hp	1	-	-	-	-	-	-	-	-
	8518897		Gasket, BP-140, 7.5 Hp	-	1	-	-	-	1	1	-	-
	8518898	⊗	Gasket, BP-200/400, 10,15, 20 Hp	-	-	1	1	1	-	-	1	1
3	8515442	⊗	Kit, Gear Set, BP-100	1	-	-	-	-	-	-	-	-
	8515443		Kit, Gear Set, BP-140	-	1	-	-	-	1	1	-	-
	8515444		Kit, Gear Set, BP-200 & BP-400	-	-	1	1	-	-	1	1	-
	8515445	⊗	Kit, Gear Set, BP-500	-	-	-	-	1	-	-	-	-
	<i>(All consist of 1 set of Timing Gears)</i>											
4	8515446	⊗	Kit,Impellers,Set of 2, BP-100	1	-	-	-	-	-	-	-	-
	8515447	⊗	Kit,Impellers,Set of 2, BP-140	-	1	-	-	-	-	-	-	-
	8515448	⊗	Kit,Impellers,Set of 2, BP-200	-	-	1	-	-	-	-	-	-
	8515449	⊗	Kit,Impellers,Set of 2, BP-400	-	-	-	1	-	-	-	-	-
	8515450	⊗	Kit,Impellers,Set of 2, BP-500	-	-	-	-	1	-	-	-	-
	<i>All include the following: 1 Assembly Shaft; long; 1 Assembly Shaft, short</i>											
5	8515778	⊗	Foot, Horiz, BP-100, Set of 2	1	-	-	-	-	-	-	-	-
	8515779	⊗	Foot, Horiz, BP-140, Set of 2	-	1	-	-	-	-	-	-	-
	8515780	⊗	Foot, Horiz, BP-200 & 400, Set of 2	-	-	1	1	-	-	-	-	-
	8515781	⊗	Foot, Horiz, BP-500, Set of 2	-	-	-	-	1	-	-	-	-
6	8518851 1	⊗	Foot, Vertical, 3" Pump, Set of 2	1	-	-	-	-	-	-	-	-
	8518852 1	⊗	Foot, Vertical, 4" Pump, Set of 2	-	1	-	-	-	-	-	-	-
	8518853 1	⊗	Foot, Vertical, 5" Pump, Set of 2	-	-	1	1	-	-	-	-	-
	8518854 1	⊗	Foot, Vertical, 6" Pump, Set of 2	-	-	-	-	1	-	-	-	-
7	8516845	n/s	Label,Danger/Attention	1	1	1	1	1	-	-	-	-
8	8516145 2		Plug, Sight, 1/4 NPT	1	-	-	-	-	-	-	-	-
	8516146 2, 3		Plug, Sight, 3/8 NPT	-	1	1	1	1	-	-	-	-
9	-----		Literature 9ES-638 (Service InstructionsI)	ref	ref	ref	ref	ref	-	-	-	-
10	8502620		Plug, Vent, Vac pump, 5-20 HP	1	1	1	1	-				
	8502621	⊗	Plug, Vent, Vac pump, 25 HP	-	-	-	-	1	-	-	-	1
11	8507413	n/s	Grease, Bearing, HI-Temp, Cart.	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r

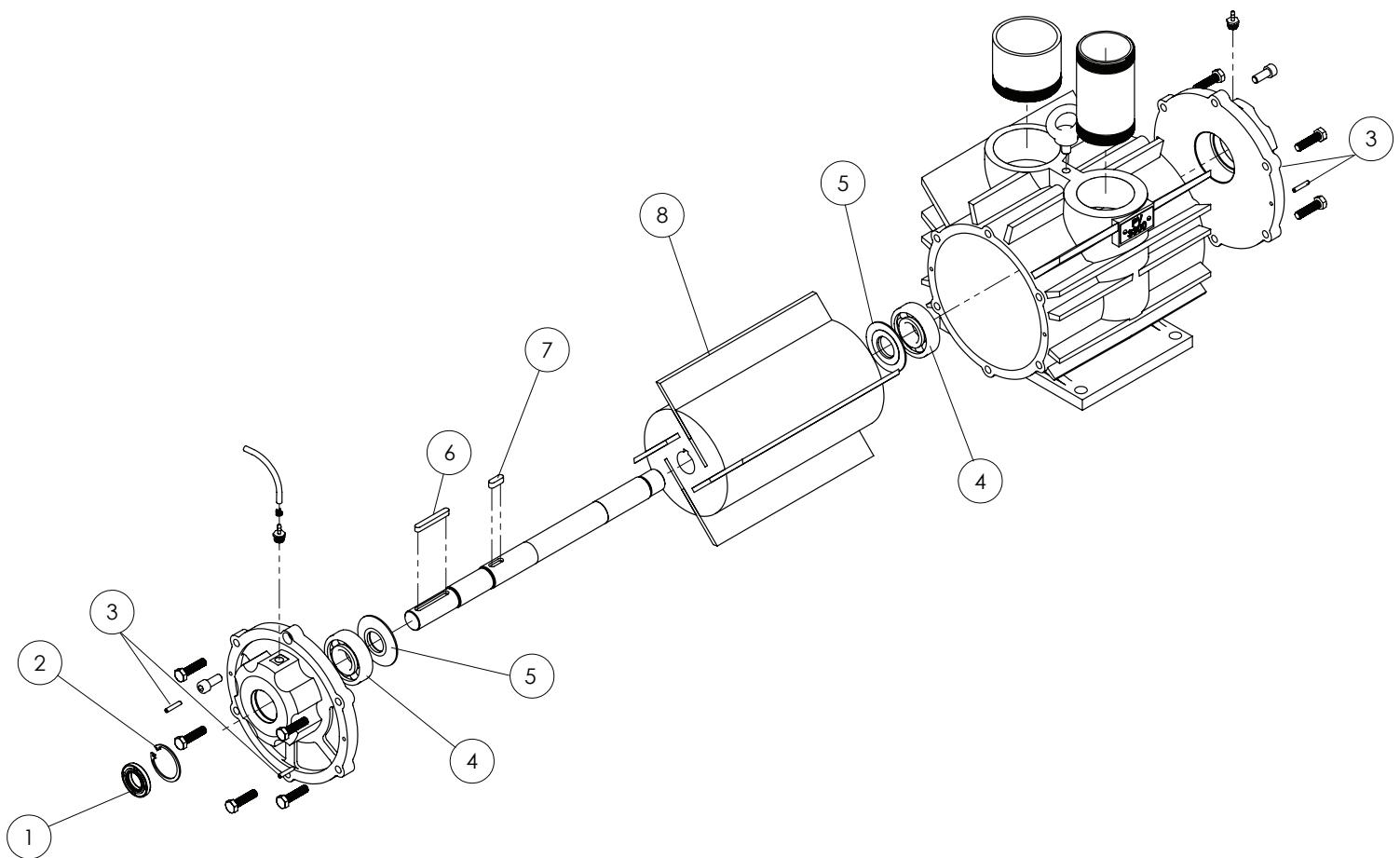
Note:

1. Item 6 represents optional foot for vertical pump mounting which is not included in Pump assemblies.
2. Sight plugs not included with pump assemblies. Sight plugs are included with blower packages on page A-62.
3. When using 3/8" sight plug (item 8, 8516146) on a 25 Hp pump assembly (8517754), a 3/8" x 1/2" reducer is also required.

BGM 5/BGM 5+ PUMPS

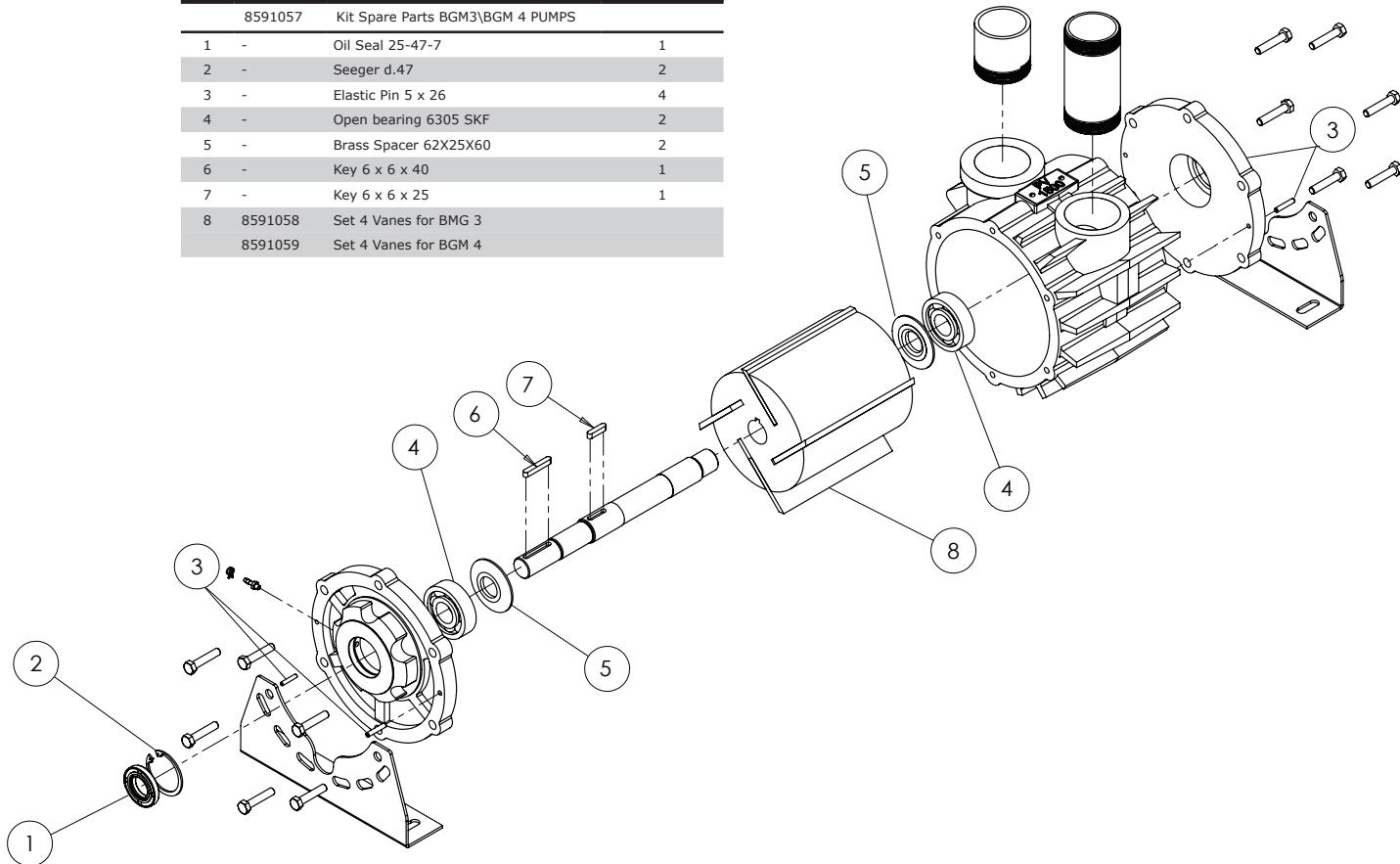
SECTION A	PAGE 7
EFFECTIVE: 4/30/14	

ITEM NO.	PART NO.	DESCRIPTION	QTY REQUIRED (a/r=AS REQUIRED)
8591060 Kit Spare Parts BGMS/BGM 5+ PUMPS			
1		Oil Seal 25-47-7	1
2		Seeger d.47	2
3		Elastic Pin 5 x 26	4
4		Open bearing 6306 SKF	2
5		Aluminum Spacer 3300	2
6		Key 8 x 7 x 60	1
7		Key 8 x 7 x 25	1
8	8591061	Set 4 Vanes for BGM 5/5+	



BGM 3/BGM 4 PUMPS

ITEM	PART NO.	DESCRIPTION	QTY REQUIRED (a/r=AS REQUIRED)
	8591057	Kit Spare Parts BGM3\BGM 4 PUMPS	
1	-	Oil Seal 25-47-7	1
2	-	Seeger d.47	2
3	-	Elastic Pin 5 x 26	4
4	-	Open bearing 6305 SKF	2
5	-	Brass Spacer 62X25X60	2
6	-	Key 6 x 6 x 40	1
7	-	Key 6 x 6 x 25	1
8	8591058	Set 4 Vanes for BMG 3	
	8591059	Set 4 Vanes for BGM 4	

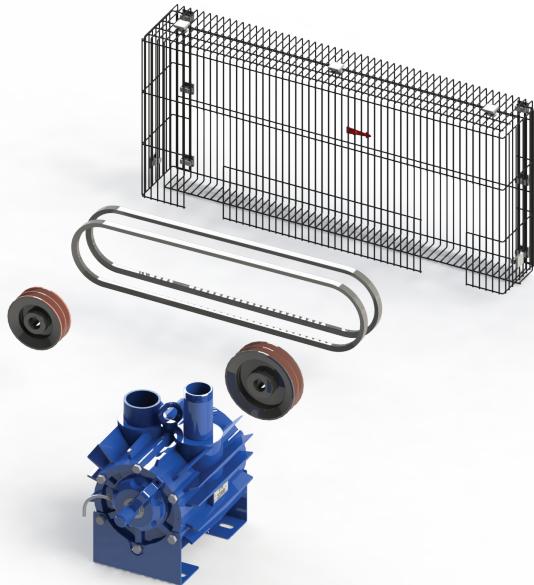


BGM 3 - BGM 4 PUMP REPLACEMENT KITS
(Replacements for kits delivered before January 2014)

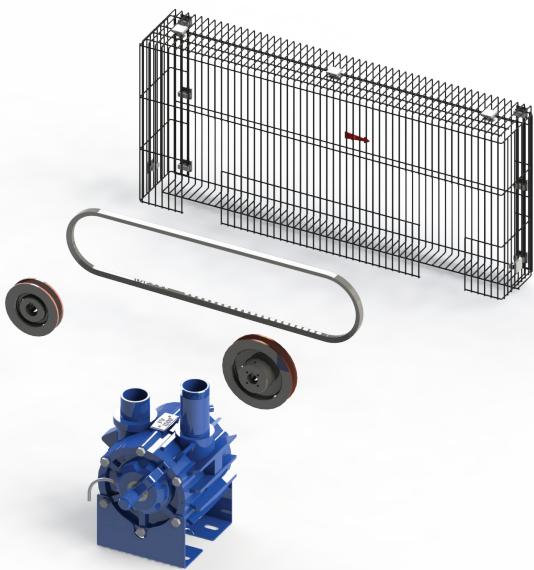
SECTION A	PAGE 9
EFFECTIVE: 9/24/14	

ITEM	PART NO.	DESCRIPTION	QTY REQUIRED (a/r=AS REQUIRED)
---	8591544	KIT REPLACEMENT PUMP BGM4	BGM 4
		Kit consisting of: 1 pump, 1 carter, 1 pulley motor, 1 pulley pump and 2 belts.	

8591544

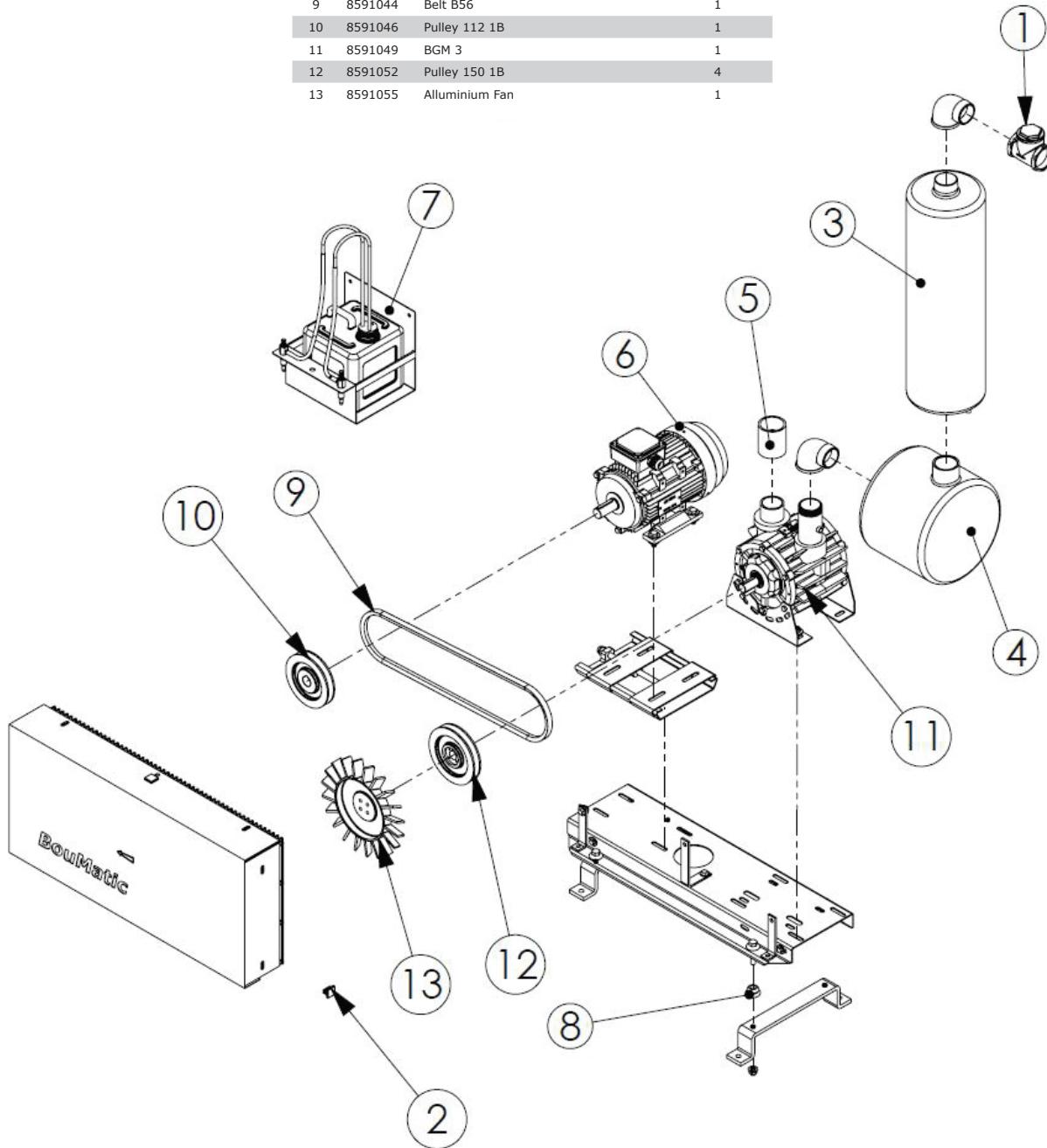


8591543



BGM 3 ASSEMBLY

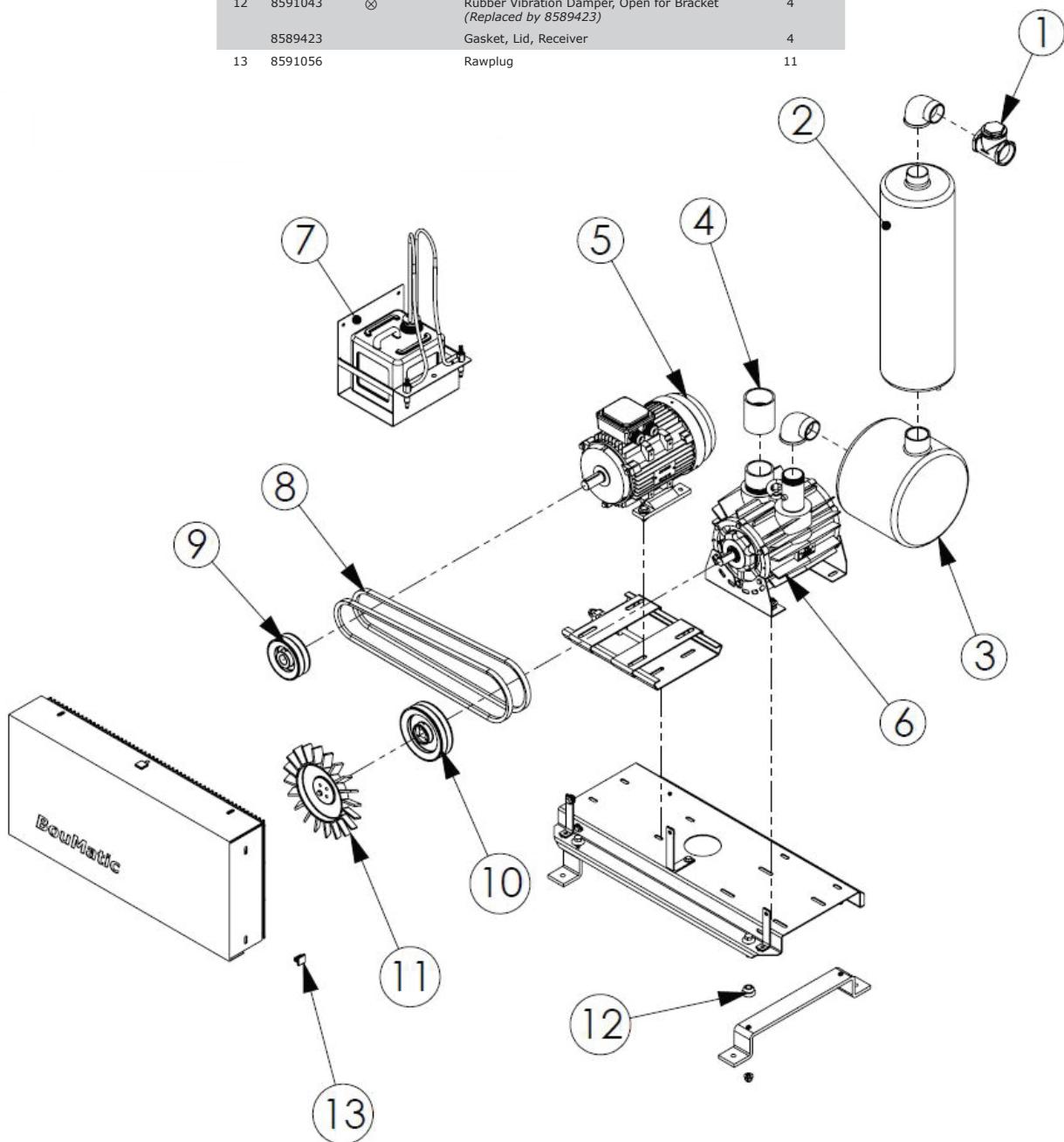
ITEM	PART NO.	DESCRIPTION	QTY REQUIRED (a/r=AS REQUIRED)
1	8591029	Valve Clapet 2"	1
2	8591056	Rawplug	10
3	8591030	Silencer BGM 3	1
4	9591032	Oil separator BGM 3	1
5	8591035	Sleeve Adp 2"x2"	1
6	8591038	Elettric Motor Kw 3, 240/400V	1
7	8591042	Drip Feed System Lt.5 with 2 drip feed lubricator	1
8	8591072	Rubber Vibration Damper Open for Bracket	4
9	8591044	Belt B56	1
10	8591046	Pulley 112 1B	1
11	8591049	BGM 3	1
12	8591052	Pulley 150 1B	4
13	8591055	Alluminium Fan	1



BGM 4 ASSEMBLY

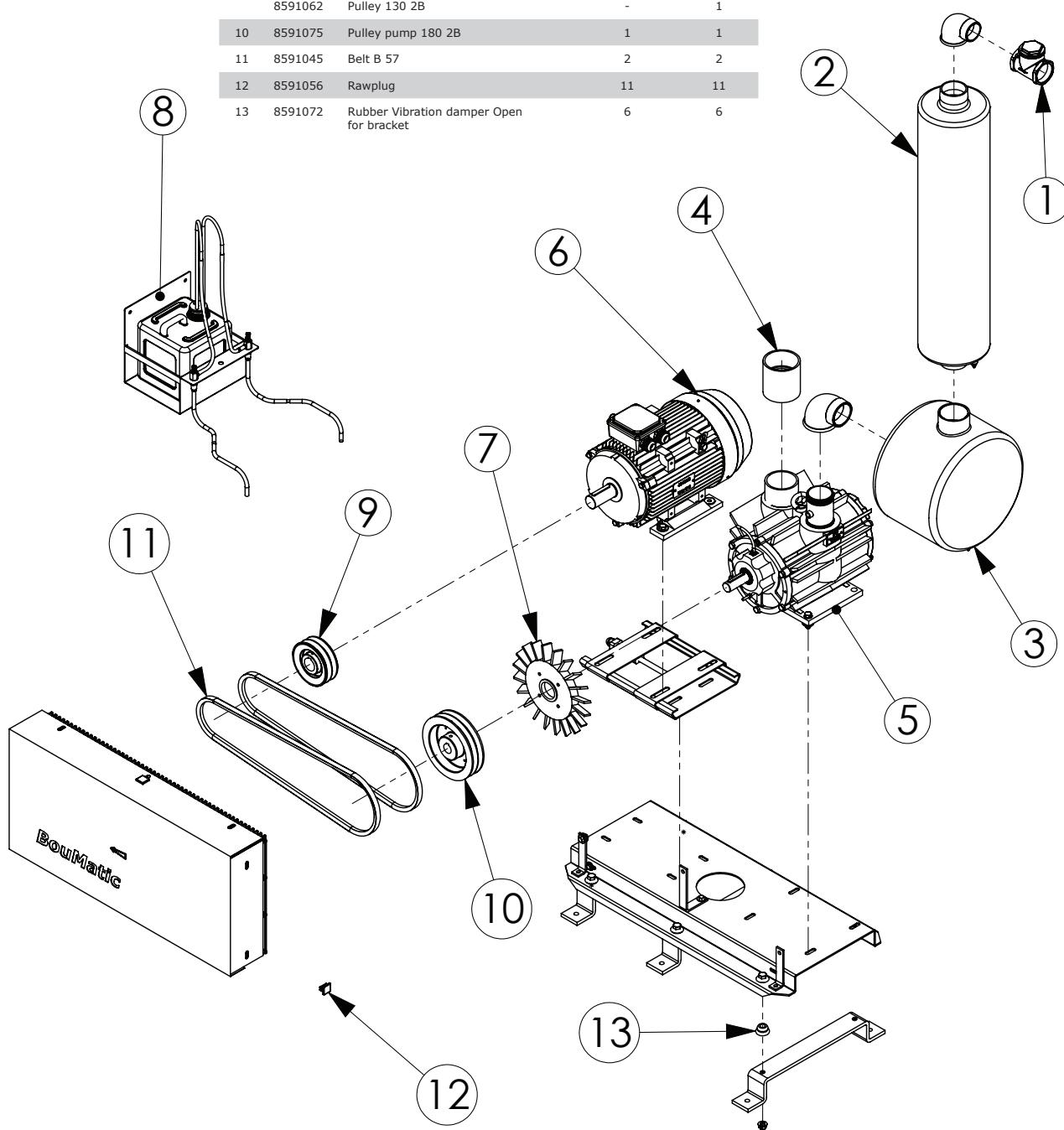
SECTION A	PAGE 11
EFFECTIVE: 4/30/15	

ITEM	PART NO.	⊗=Obsolete n/s=Not Shown	DESCRIPTION	QTY REQUIRED (a/r=AS REQUIRED)
1	8591029		Valve Clapet 2"	1
2	8591031		Silencer BGM 4	1
3	8591033		Oil separator BGM 4	1
4	8591036		Sleeve Adp 2" 1/2 x 2" 1/2	1
5	8591039		Electric Motor KW 4, 240/400 V	1
6	8591050		BGM 4	1
7	8591042		Drip Feed System Lt. 5 with 2 drip feed lubricator	1
8	8591044		Belt B56	2
9	8591074		Pulley 115 2B	1
10	8591053		Pulley 150 2B	1
11	8591055		Aluminium fan	1
12	8591043	⊗	Rubber Vibration Damper, Open for Bracket (Replaced by 8589423)	4
	8589423		Gasket, Lid, Receiver	4
13	8591056		Rawplug	11



BGM 5 - BGM 5+ ASSEMBLY

ITEM NO.	PART NO.	DESCRIPTION	QTY REQUIRED (a/r=AS REQUIRED)	
			BGM 5	BGM 5+
1	8591029	Valve Clapet 2"	1	1
2	8591031	Silencer BGM 5 - BGM 5+	1	1
3	8591034	Oil separator 2" 1/2 d.290mm	1	1
4	8591037	Adp sleeves 3" x 3" (90 - 90mm)	1	1
5	8591051	BGM 5 - BGM 5+	1	1
6	8591040	Elettric Motor Kw 5,5 400/690 V	1	-
	8591041	Elettric Motor Kw 7,5 400/690 V	-	1
7	8591055	Aluminium Fan	1	1
8	8591042	Drip Feed System Lt. 5 with 2 drip feed lubricator	1	1
9	8591048	Pulley 95 2B	1	-
	8591062	Pulley 130 2B	-	1
10	8591075	Pulley pump 180 2B	1	1
11	8591045	Belt B 57	2	2
12	8591056	Rawplug	11	11
13	8591072	Rubber Vibration damper Open for bracket	6	6



FR2, FR3, FR4 Vacuum Pumps

SECTION A	PAGE 13
EFFECTIVE: 4/1/01	

IMPORTANT NOTE

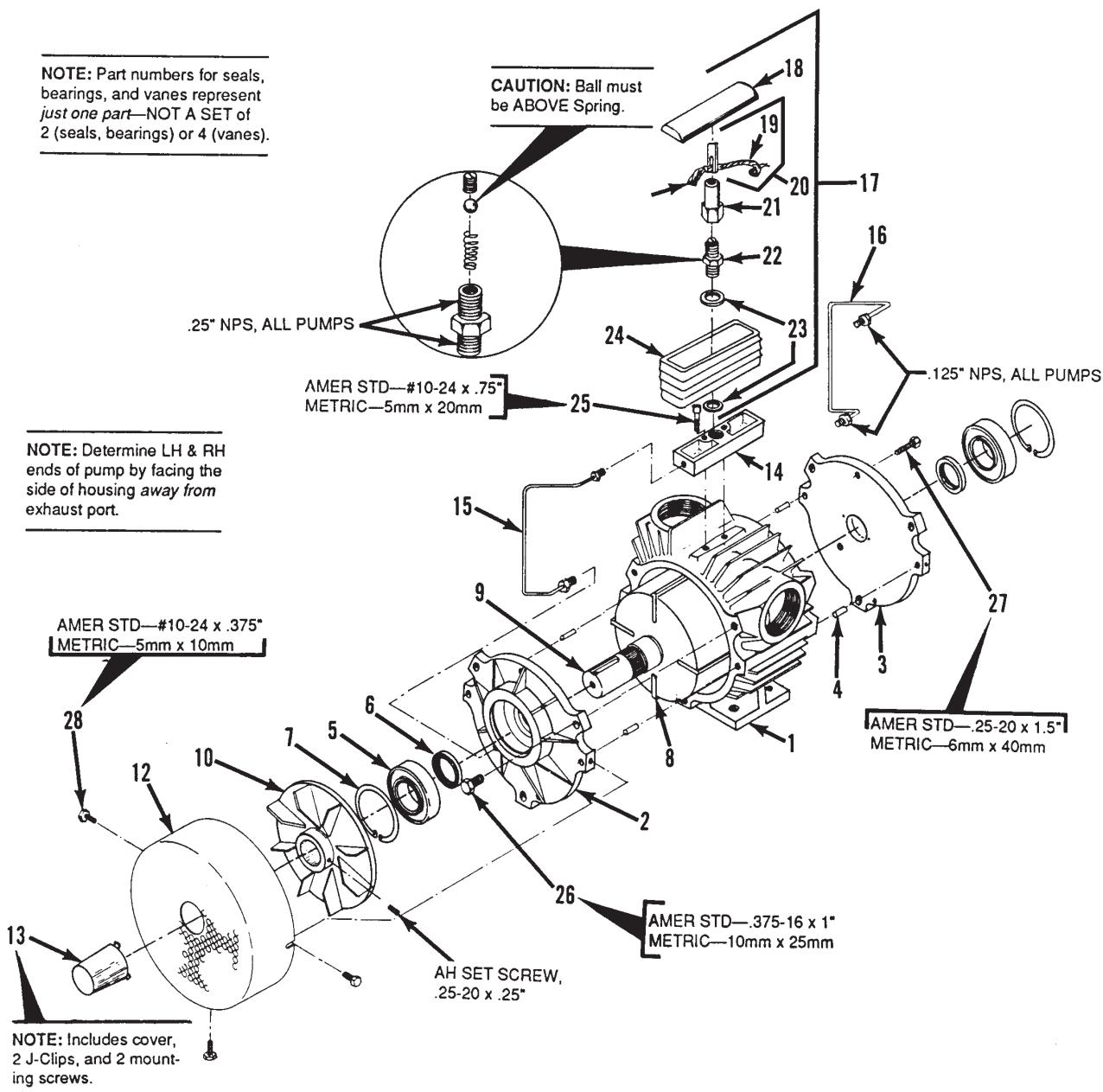
"American-standard" FR pumps require inch-sized fasteners. "Metric" pumps require fasteners for items 25 thru 28. THE AMERICAN-STANDARD & METRIC FASTENERS LISTED FOR ITEMS 25 THRU 28 ARE NOT INTERCHANGEABLE. TO DETERMINE THE TYPE OF PUMP, MEASURE THE ROTOR-SHAFT DIAMETER. American-standard pumps have 1.25" shafts; metric pumps, 28mm (.1102") shafts. (See Chart, page A-1b) Most—but not all—metric pumps have an identifying daub of red paint on the housing or end plates.

METRIC HOUSINGS, END PLATES, AND ROTORS CAN BE USED ON AMERICAN-STANDARD PUMPS BY DOING THE FOLLOWING:

HOUSING—Replace .375" end-palte screws (item 26) with 10mm screws. Replace #10-24 oiler-base screws (item 25) with 5mm screws. If necessary, enlarge screw holes in Oiler Base (item 14) with a .219" (7/32) drill bit to accommodate 5mm screws.

END PLATES—Replace .25" jackscrews (item 27) with 6mm screws. Replace #10-24 fan-cover screws (item 28) with 5mm screws.

ROTOR—Replace Fan (item 10) having a 1.125" bore with Fan having a 28mm bore.



FR2, FR3, FR4 Vacuum Pumps (Cont.)

ITEM	PART NO.	⊗=Obsolete n/s=Not Shown	DESCRIPTION	QTY REQUIRED (a/r=As Required)				
	8519635	⊗	Pump, Vacuum, FR2 (shown)	9635				
	8519625	⊗	Pump, Vacuum, FR3		9625			
	8519630	⊗	Pump, Vacuum, FR4			9630		
	8519811	⊗	Pump, Vacuum, FR3, Metric				9811	
	8519812	⊗	Pump, Vacuum, FR4, Metric					9812
1	8519617	⊗	Housing, FR2, American-Std (shown)	1	-	-	-	-
	8519872	⊗	Housing, FR3/3A, NPT & Metric	-	1	-	1	-
	8519678	⊗	Housing, FR4, American-Std	-	-	1	-	-
	8519873	⊗	Housing, FR4/4A, Metric	-	-	-	-	1
2	8519677	⊗	Plate, End, RH, FR2-4, Amer-Std	1	1	1	-	-
	8519874	⊗	Plate, End, RH, FR2-4, Metric	-	-	-	1	1
3	8519676	⊗	Plate, End, LH, FR2-4, Amer-Std	1	1	1	-	-
	8519875	⊗	Plate, End, LH, FR2-4, Metric	-	-	-	1	1
4	1292435	⊗	Pin, Dowel, 1/4 x 1	4	4	4	4	4
5	8519821		Bearing, Ball, FR2-4	2	2	2	2	2
6	8519629		Seal, Oil, FR2/3/4/3A/4A	2	2	2	2	2
7	8519675	⊗	Ring, Retaining, Int'l	2	2	2	2	2
8	8519638	⊗	Vane, FR2, 4.625" x 1.75"	4	-	-	-	-
	8519627		Vane, FR3/3A, 7.125" x 1.75"	-	4	-	4	-
	8519639	⊗	Vane, FR4/4A, 11" x 1.75"	-	-	4	-	4
9	8519709	⊗	Rotor, FR2, w/28 MM Shaft	1	-	-	-	-
	8519708	⊗	Rotor, FR3, w/1.125 Shaft	-	1	-	-	-
	8519710	⊗	Rotor, FR4, w/1.125 Shaft	-	-	1	-	-
	8519807	⊗	Rotor, FR3, w/28 MM Shaft	-	-	-	1	-
	8519808	⊗	Rotor, FR4, w/28 MM Shaft	-	-	-	-	1
10	8519674	⊗	Fan, Vac-Pump, 1.125" Bore	1	1	1	-	-
	8519876	⊗	Fan, Vac-Pump, 28 MM Bore	-	-	-	1	1
11 ¹	8513685	(n/s)	Key, ZP, 1/4Sq x 2 In	1	1	1	-	-
	8519809 or	(n/s)	Key, ZP, 5/16 x 1/4 x 2	-	-	-	1	1
	8519803	⊗	Key, 8 x 7 x 50 MM	-	-	-	1	1
12	8519680	⊗	Cover, Fan, FR2-4	1	1	1	1	1
13	8519713	⊗	Cover, Shaft, FR2/3/4/3A/4A	1	1	1	1	1
14	8519694	⊗	Base, Oiler Assy, FR2-4	1	1	1	1	1
15	8519682	⊗	Pipe Assy, Oil, RH, FR2	1	-	-	-	-
	8519684	⊗	Pipe Assy, Oil, RH, FR3	-	1	-	1	-
	8519686	⊗	Pipe Assy, Oil, RH, FR4	-	-	1	-	1
16	8519681	⊗	Pipe Assy, Oil, LH, FR2	1	-	-	-	-
	8519683	⊗	Pipe Assy, Oil, LH, FR3	-	1	-	1	-
	8519687	⊗	Pipe Assy, Oil, LH, FR4	-	-	1	-	1
17	8519626	⊗	Oiler Assy, F20/30/40 (shown)	1	1	-	1	-
	8519637	⊗	Oiler Assy, FR4 (Oiler includes items 18 thru 24)	-	-	1	-	1
18	8519685	⊗	Cover, Reservoir, F2/3 (shown)	1	1	-	1	-
	8519711	⊗	Cover, Reservoir, FR4/3A/4A	-	-	1	-	1
19	8519611	⊗	Wick, Oil, Vac-Pump	1	1	1	1	1
20	8519757	⊗	Anchor & Wick Assy, Vac-Pump	1	1	1	1	1
21	8519692	⊗	Support, Wick, 1.50, FR-2/3/5	1	1	-	1	-
	8519693	⊗	Support, Wick, 1.12, FR-3/4	-	-	1	-	1
22	8519616	⊗	Valve Assy, Check, Oiler (Includes Body, Spring, Ball, & Adjusting Screw)	1	1	1	1	1
23	8519615	⊗	Wshr, Fibre, .52 x .88 x .06	2	2	2	2	2
24	8519826	⊗	Reservoir, Oil, F2/3 (shown)	1	1	-	1	-
	8519712	⊗	Reservoir, Oil, FR4	-	-	1	-	1
25	-----		AHCS, ZP, #10-24 x .75"	2	2	2	-	-
	8519894	⊗	AHCS, ZP, 5 MM x 20 MM	-	-	-	2	2
26	-----		HHCS, ZP, 3/8-16 x 1"	6	6	6	-	-
	8519895	⊗	HHCS, ZP, 10 MM x 25 MM	-	-	-	6	6
27	-----		HHCS, ZP, 1/4-20 x 1.5"	2	2	2	-	-
	8519896	⊗	HHCS, ZP, 6 MM x 40 MM	-	-	-	2	2
28	-----		HHMS, ZP, #10-24 x .375"	3	3	3	-	-
	8519897	⊗	MSCR, PNH, M5 x 10 MM, ZP	-	-	-	3	3

NOTE:

1. Key 8519803 used beginning with serial #40944 on FR3A and #23795 on FR4A

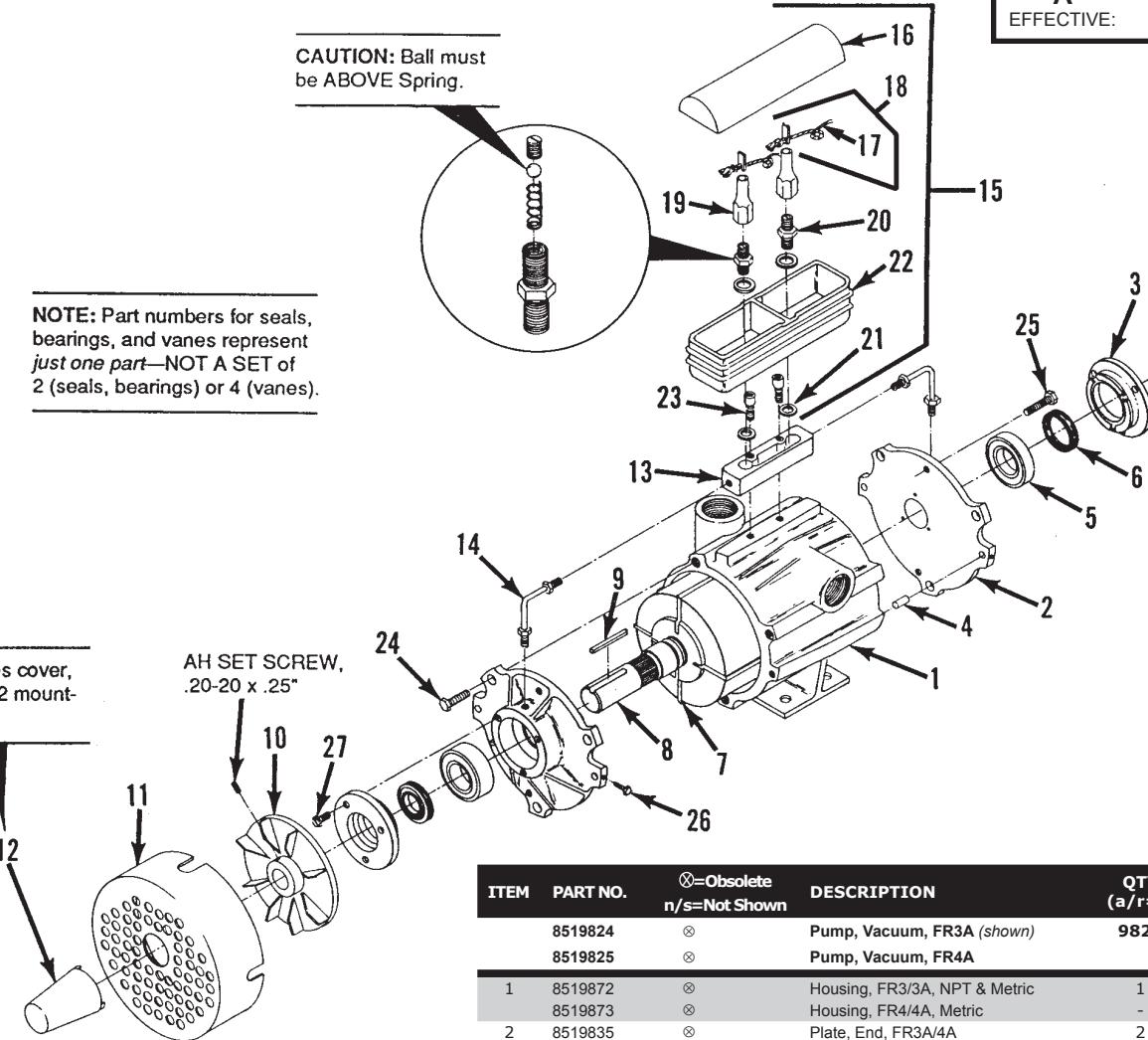
FR3A & FR4A Vacuum Pumps

SECTION A	PAGE 15
EFFECTIVE: 3/9/17	

CAUTION: Ball must be ABOVE Spring.

NOTE: Part numbers for seals, bearings, and vanes represent just one part—NOT A SET of 2 (seals, bearings) or 4 (vanes).

NOTE: Includes cover, 2 J-Clips, and 2 mounting screws.



ITEM	PART NO.	⊗=Obsolete n/s=Not Shown	DESCRIPTION	QTY REQUIRED (a/r=As Required)
	8519824	⊗	Pump, Vacuum, FR3A (shown)	9824
	8519825	⊗	Pump, Vacuum, FR4A	9825
1	8519872	⊗	Housing, FR3/4A, NPT & Metric	1 -
	8519873	⊗	Housing, FR4/4A, Metric	- 1
2	8519835	⊗	Plate, End, FR3A/4A	2 2
3	8519823	⊗	Plate, Retainer, FR3A/4A	2 2
4	1292435	⊗	Pin, Dowel, 1/4 x 1	4 4
5	8519846		Bearing, Ball, FR3A/4A	2 2
6	8519629		Seal, Oil, FR2/3/4/3A/4A	2 2
7	8519627		Vane, FR3/4A, 7.125" x 1.75"	4 -
	8519639	⊗	Vane, FR4/4A, 11" x 1.75	- 4
8	8519828	⊗	Rotor, FR3A, w/28 MM Shaft	1 -
	8519827	⊗	Rotor, FR4A, w/28 MM Shaft	- 1
9 ¹	8519809	⊗	Key, ZP, 5/16 x 1/4 x 2	1 1
	8519803	⊗	Key, 8 x 7 x 50 MM	1 1
10 ²	8519876	⊗	Fan, Vac-Pump, 28 MM Bore	1 1
	8519271	⊗	Fan, Vac-Pump, 28 MM Bore	1 1
11	8519829	⊗	Cover, Fan, FR3A/4A	1 1
12	8519713	⊗	Cover, Shaft, FR2/3/4/3A/4A	1 1
13	8519877	⊗	Base, Oiler Assy, FR3A/4A	1 1
14	8519845	⊗	Pipe Assy, Oil, FR3A	2 -
	8540154	(n/s)	Kit, Repl.Oiler,DB/FR (Parts on page A-39 & A40)	- a/r
15 ³	8519878	⊗	Oiler Assy, Dbl-Check-Valve (Includes Items 16 thru 22)	1 1
16	8519711	⊗	Cover, Reservoir, FR4/3A/4A	1 1
17	8519611	⊗	Wick, Oil, Vac-Pump	2 2
18	8519757	⊗	Anchor & Wick Assy, Vac-Pump	2 2
19	8519693	⊗	Support, Wick, 1.12, FR-3/4	2 2
20	8519616	⊗	Valve Assy, Check, Oiler (Includes Body, Spring, Ball, & Adjusting Screw)	2 2
21	8519615	⊗	Wsh, Fibre, .52 x .88 x .06	4 4
22	8519879	⊗	Reservoir, Oil, Dbl-Bowl	1 1
23	8519894	⊗	AHCS, ZP, 5 MM x 20 MM	2 2
24	8519895	⊗	HHCS, ZP, 10 MM x 25 MM	6 6
25	8519896	⊗	HHCS, ZP, 6 MM x 40 MM	2 2
26	8519898	⊗	MSCR, PNH, M5 x 6 MM, ZP	3 3
27	8519899	⊗	HHCS, ZP, 6 MM x 16 MM	6 6
28	8518013	(n/s)	Label, Instr, Drip Rate	1 1

Note:

¹ Later pumps use Key 8519803.

² Use fan 8519271 for FR3A starting with serial #50782 and FR4A starting with serial #34518.

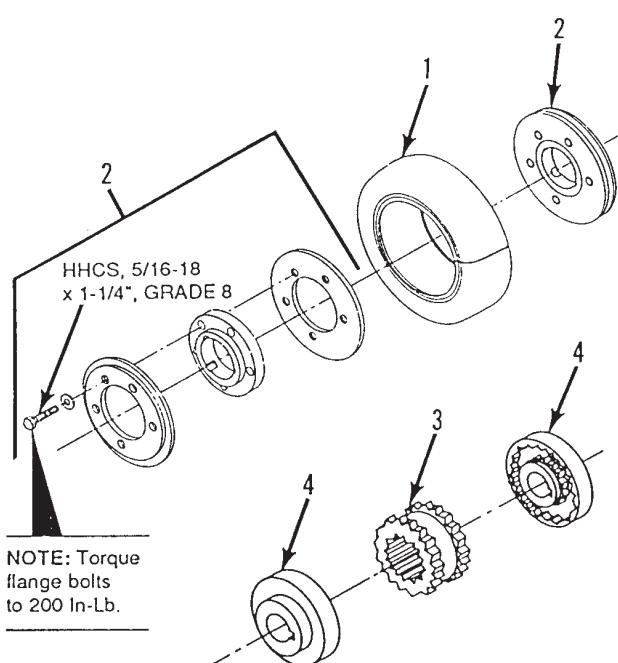
³ For pumps that have been retrofitted with Oiler 8540137 or 8540154, see pages A-39 & 40 for parts.

Vacuum Suppliers

ITEM	PART NO.	⊗=Obsolete n/s=Not Shown	DESCRIPTION	QTY REQUIRED (a/r=As Required)
-	8519869	⊗	Supplier, FR3A, 5Hp, 1Ph	869
-	8519870	⊗	Supplier, FR4A, 7.5Hp, 1Ph	870
-	8519868	⊗	Supplier, FR4A, 7.5Hp, 3Ph	868
1	8519824	⊗	Pump, Vacuum, FR3A (Parts on page A18)	1 - -
	8519825	⊗	Pump, Vacuum, FR4A (Parts on page A18)	- 1 1
2	8505733	⊗	Motor, 5Hp, 1Ph, 230V, 60Hz	1 - -
	8505730	⊗	Motor, 7.5Hp, 1Ph, 230V, 60Hz	- 1 1
	8505829	⊗	Motor, 7.5Hp, 3Ph, 230V, 60Hz (Replaced by 1400307)	- - 1
	1400307		Motor, 7.5 Hp, 3Ph, 230/460V, 1750	- - 1
3	8519863	⊗	Label, CFM-Rating, FR3A	1 - -
	8519871	⊗	Label, CFM-Rating, FR4A	- 1 1
4	-----	(n/s)	Coupling, Chain (Parts on page A11)	1 1 1
	-----		Coupling, Para-Flex (Parts on page A23)	1 1 1
	-----	(n/s)	Coupling, Sure-Flex (Parts on page A23)	1 1 1
5	8519809	⊗	Key, ZP, 5/16 x 1/4 x 2	1 1 1
6	8513685		Key, ZP, 1/4Sq x 2 In	1 1 1
7	8519854	⊗	Bushing, Tapered, 1-1/8 Bore	1 1 1
8	8519855	⊗	Bushing, Tapered, 28 MM Bore (NOTE: Bushings include 3/8-16 set screws)	1 1 1
9	8519859	⊗	Guard, Coupling	1 1 1
10	-----	⊗	Shim, 5/8 x 9-1/4 In	2 2 2
11	8519865	⊗	Shim, .015 x 9.000	a/r a/r a/r
12	8519853	⊗	Bar, Nut, Pump-Base	2 2 2
13	8519837		Mount, Vibration, Rubber	3 3 3
14	8519836	⊗	Bushing, Stem	3 3 3
15	1132432		TFSCR, HXWH, 1/4-14 x 1/2 ZP AB	4 4 4
16	8505872	⊗	Adapter, 2.00 Hose x 2 NPT	1 1 1
17	8505870	⊗	Coupling, Hose, 2 In ID x 4	1 1 1
18	8514033		Clamp, Hose, SS, #36, 1.80-2.75	2 2 2
19	1401933	⊗	Bushing, Hex, Galv, 2 x 1-1/2	a/r a/r a/r
20	8502920 ¹		Muffler, Vac-Pump, 2 In	1 1 1
21	8502901	⊗	Flapper Assy, Muffler	1 1 1
22	8502906	⊗	Flapper, Muffler	1 1 1
23	8506120		Label, Bou-Matic, 2.25 x 6	1 1 1
24	8518046		Label, Warning, Belt Guard	1 1 1

NOTE:

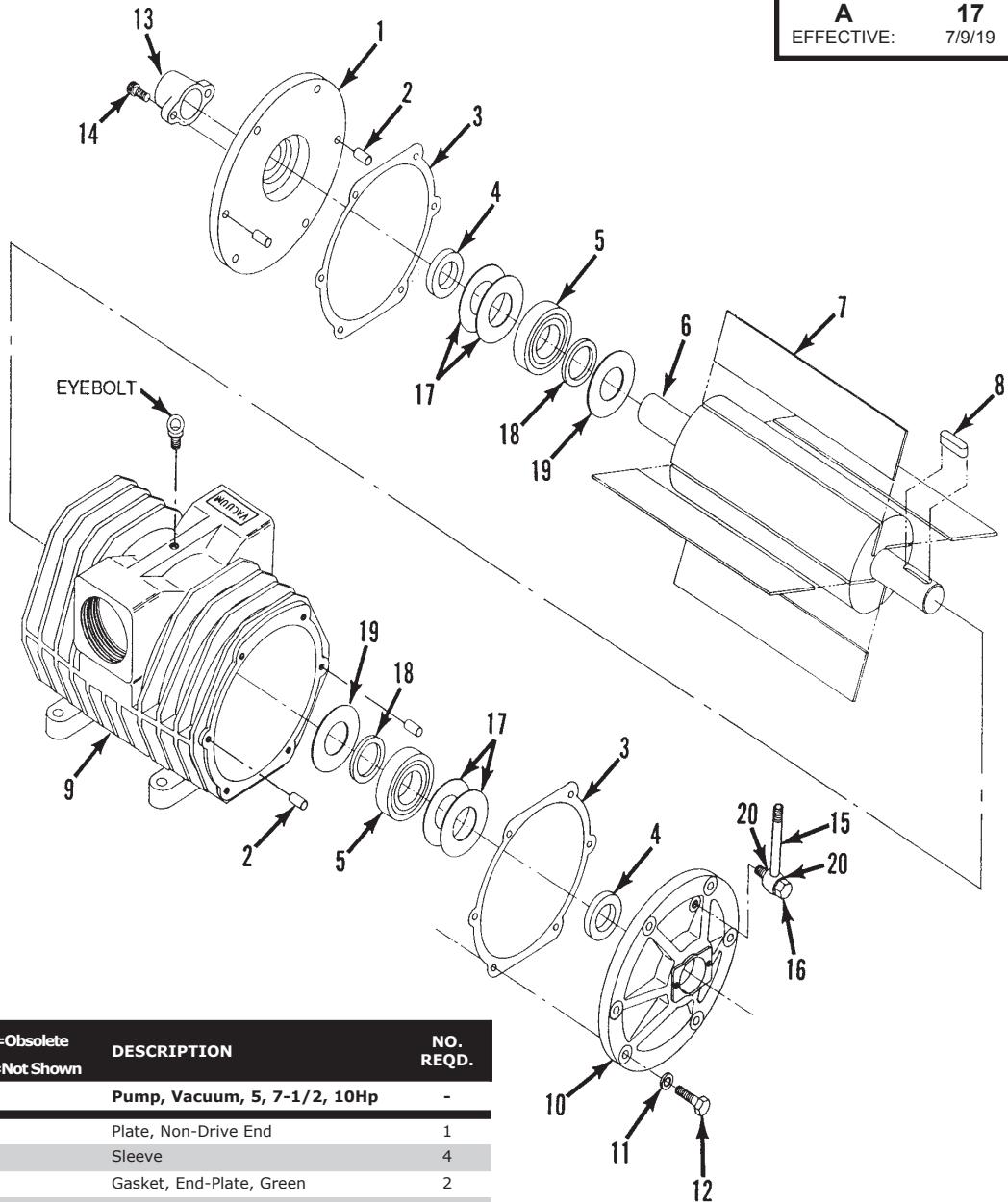
1. When replacing Muffler, Bushings may be required depending on Flapper Assembly used.



ITEM	PART NO.	⊗=Obsolete n/s=Not Shown	DESCRIPTION	QTY REQUIRED (a/r=As Required)
-	-----		Coupling, Para-Flex	-
-	-----		Coupling, Sure-Flex	-
1	8519857	⊗	Element, Coupling, Rubber	1 -
2	8519856	⊗	Flange Assy, Coupling	2 -
3	8519064		Sleeve, Sure-Flex	- 1
4	8519062	⊗	Flange, Sure-Flex, 1.125 Bore	- 1
	8519248	⊗	Flange, Sure-Flex, 28 mm Bore	- 1
	8519063	⊗	Flange, Sure-Flex, 32 mm Bore	- 1

VP Series

SECTION A	PAGE 17
EFFECTIVE: 7/9/19	

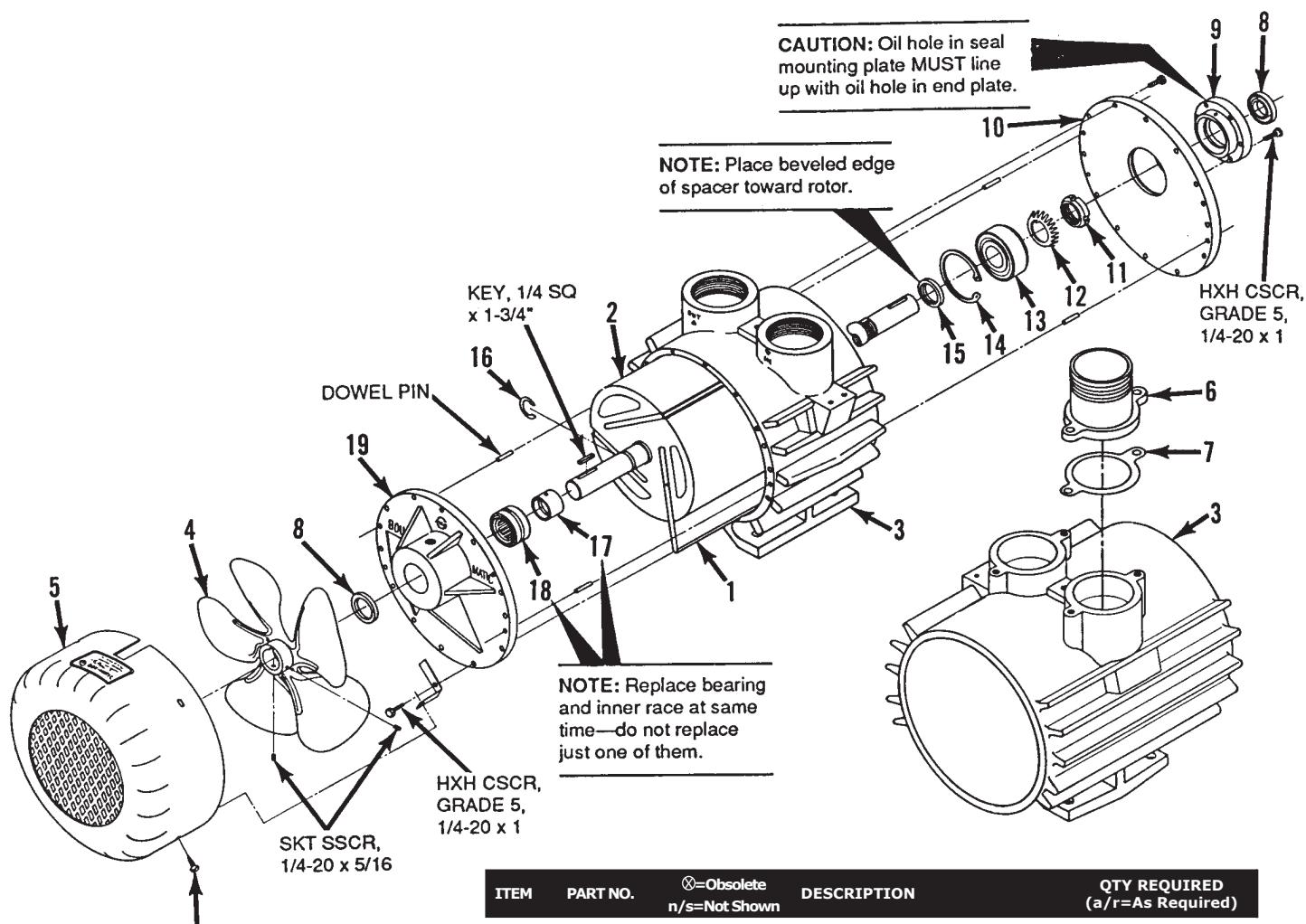


ITEM	PART NO.	⊗=Obsolete n/s=Not Shown	DESCRIPTION	NO. REQD.
-	8515903	⊗	Pump, Vacuum, 5, 7-1/2, 10HP	-
1	8515934	⊗	Plate, Non-Drive End	1
2	8515935	⊗	Sleeve	4
3	8515918		Gasket, End-Plate, Green	2
4	8515936		Seal, Shaft	2
5	8515937		Bearing, Ball, VP	2
6	8515938	⊗	Rotor	1
7	8515916	⊗	Vane, Vac-Pump, VP Series	4
8	8515980	⊗	Key, 10 x 8 x 40 mm, ZP	2
9	8515940	⊗	Housing	1
10	8515941	⊗	Plate, Drive End	1
11	8515942	⊗	Wsh, Stl, 0.31 x 0.45 x .04	16
12	8515943	⊗	CSCR, HXH, M6 x 30	12
13	8515944	⊗	Cap, Shaft	1
14	8515945	⊗	CSCR, Sch, M6 x 15	2
15	8515946 ¹	⊗	Nipple, Oiler	2
16	8515947	⊗	CSCR, HXH, M8, Hollow	2
17	8515948		Shim, Bearing, Set of 8	a/r
18	8515949		Shim, .008 x 1.681	2
19	8515995		Ring, Oil Retention	2
20	8515607		Wsh, Brs, 0.31 x 0.45 x .04	4

NOTE:

1. Item 15 is replaced by 8502375.

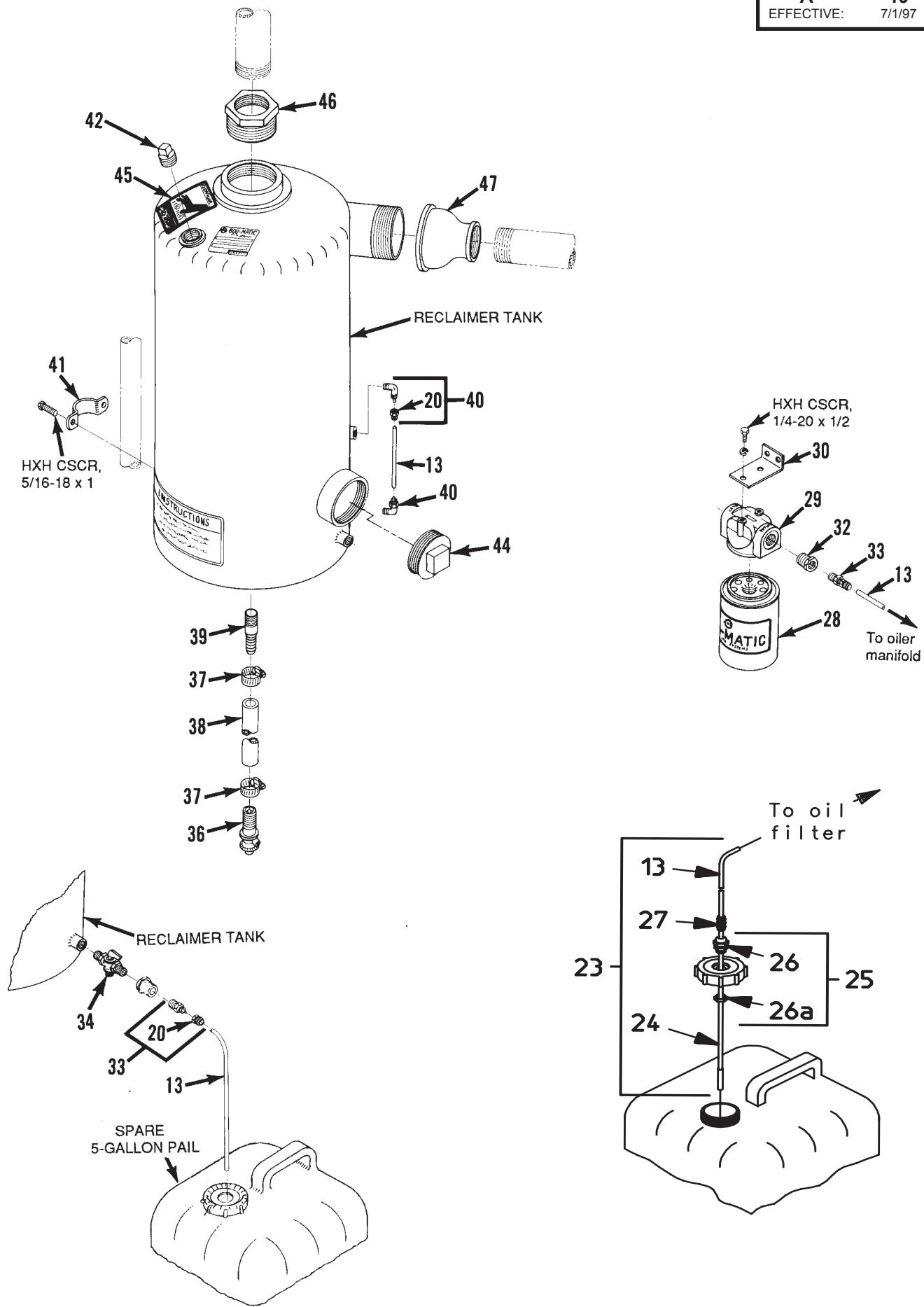
DB-2000, DB-2000 II, DB-3000 Vacuum Pump



ITEM	PART NO.	⊗=Obsolete n/s=Not Shown	DESCRIPTION	QTY REQUIRED (a/r=As Required)
	8519900	⊗	Pump, Vacuum, DB2000	9900
	8619358	⊗	Pump, Vacuum, DB2000 II	9358
	8519372	⊗	Pump, Vacuum, DB3000	9372
1	8519396		Vane, Vac-Pump, DB2000	3 - -
	8519214		Vane, Vac-Pump, DB2000 II	- 4 -
	8519051	⊗	Vane, Vac-Pump, DB3000	- - 3
2	8519930	⊗	Rotor, DB2000, w/1-1/4 Shaft	1 - -
	8519212	⊗	Rotor, DB2000 II	- 1 -
	8519054	⊗	Rotor, DB3000, w/1-1/4 Shaft	- - 1
3	8519929	⊗	Housing, Vac-Pump, DB2000	1 - -
	8519213	⊗	Housing, Vac-Pump, DB2000 II	- 1 -
	8519053	⊗	Housing, Vac-Pump, DB3000	- - 1
4	8518093	⊗	Fan, Vac-Pump, 1.250" Bore	- - 1
	8519373	⊗	Blade Assy, Fan, 12 In Dia	- - 1
5	8519937	⊗	Cover, Fan, Vac-Pump, DB2000	1 1 -
6	8519216	⊗	Adapter, Flanged, DB2000 II	- 2 -
7	8519215		Gasket, DB2000 II	- 2 -
8	8519943		Seal, Oil (CR#12456 or equivalent)	2 2 2
9	8519933	⊗	Plate, Mounting Seal	1 1 1
10	8519931	⊗	Plate, Drive End, DB2000/3000	1 1 1
11	8519947		Nut, Lock, Type N-07	1 1 1
12	8519946	⊗	Washer, Lock, Type W-07	1 1 1
13	8519941		Bearing, Ball, Double-Row (SKF#5207 or FAFNIR#5207W or equivalent)	1 1 1
14	8519940	⊗	Ring, Retaining, Int'l	1 1 1
15	8519934	⊗	Ring, Spacer	1 1 1
16	8519939	⊗	Ring, Retaining, Ext, Cres, 1.250	1 1 1
17	8519944		Race, Inner, Needle-Bearing (Torrington #R-202416 or equivalent)	1 1 1
18	8519942		Bearing, Needle (Torrington #HJ-243316 or equivalent)	1 1 1
19	8519932	⊗	Plate, Fan End, DB2000/3000	1 1 1

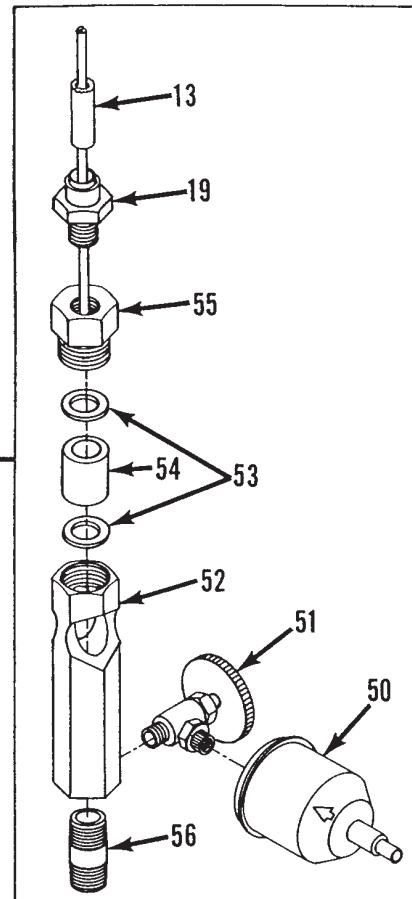
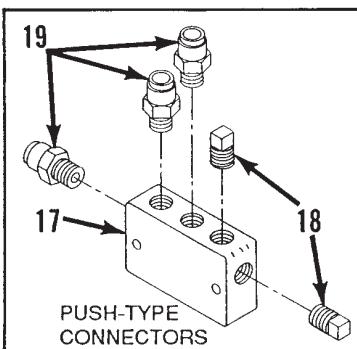
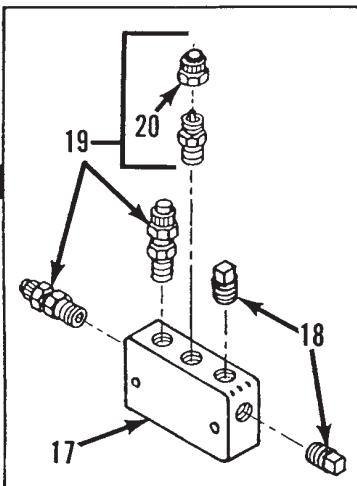
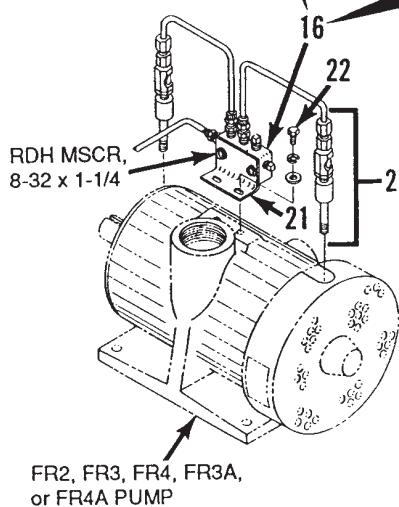
Oiler Assemblies & Oil Reclaimer

SECTION A	PAGE 19
EFFECTIVE: 7/1/97	



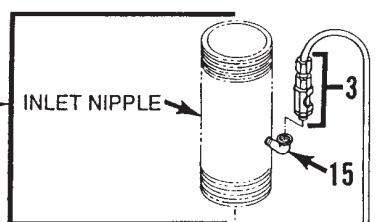
Oiler Assemblies & Oil Reclaimer (Cont.)

NOTE: Later assemblies use push-type connectors.

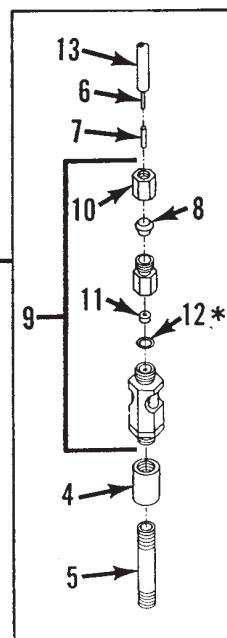
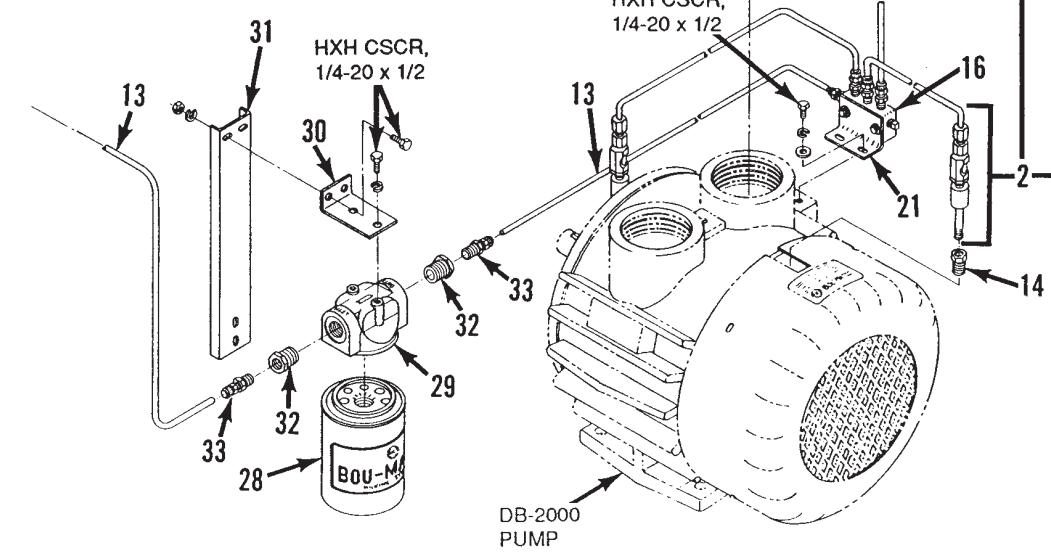


NOTE: When servicing the oiler, use Teflon tape to seal all pipe-threaded joints.

NOTE: Required only on DB-3000.



NOTE: * (Item 12) not supplied in later assemblies of this type.

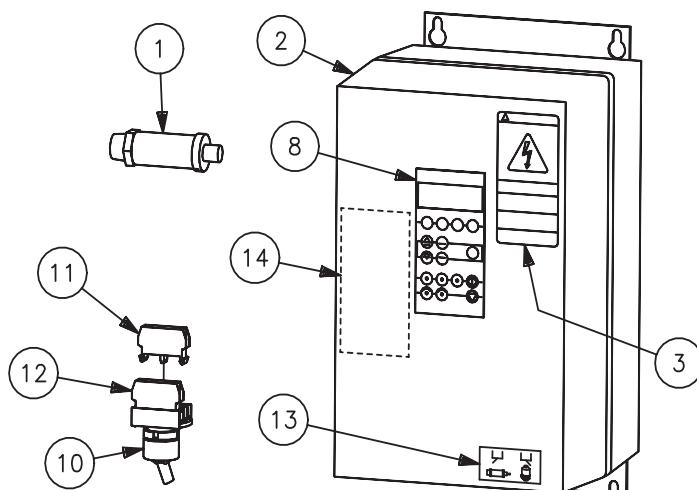


Oiler Assemblies & Oil Reclaimer (Cont.)

SECTION A	PAGE 21
EFFECTIVE: 6/1/02	

ITEM	PART NO.	⊗=OBSOLETE n/s=NOT SHOWN	DESCRIPTION	QTY REQUIRED (a/r=As Required)			
				0137	0107	VP	DB/FR
	8540137	⊗	Oiler Assy, Vacuum Pump	0137			
	8540107	⊗	Reclaimer, Oil		0107		
	-----		VP Series Vacuum Suppliers			VP	
	-----		DB/FR Series Vacuum Suppliers				DB/FR
	-----		VP-330 Vacuum Supplier				VP-330
1	-----		Literature 9P-385 (Installation & Service Instructions)	ref	ref	-	-
2	8540148	⊗	Valve Assy, Oiler	2	-	-	-
	8519190		Oiler Assy, VP (Includes items 50 thru 55, 24" of item 13, and 1 of item 19)	-	-	2	-
	8519196		Oiler Assy, DB/FR (Includes items 50 thru 55, 20" of item 13, and 1 of item 19)	-	-	2	-
	8519275	⊗	Oiler Assy, VP-330	-	-	-	3
3	8540150	⊗	Valve Assy, Oiler, w/o Cplg & Nip	-	1	-	-
4	1400640		Coupling, Galv, 1/8	2	-	-	-
5	1402140	⊗	Nipple, Galv, 1/8 x 2 Lg (Used with earlier oilers)	2	-	-	-
	1402640	⊗	Nipple, Galv, 1/8 x 4-1/2 Lg	-	-	-	2
	1402340		Nipple, Galv, 1/8 x 3 Lg (Used with later oilers on FR-A series pumps)	-	-	-	2
6	8540111		Tube, Copper, .081 x 24.00	2	1	-	-
7	8540134	⊗	Insert, Brass	2	1	-	-
8	8540040	⊗	Sleeve, Brass	2	1	-	-
9	8540045	⊗	Valve, Capillary, w/Sight	2	1	-	-
10	8540039	⊗	Nut, Brass, 7/16-24 x 1/4 Tube	2	1	-	-
11	8540073	⊗	Seal, Capillary-Valve	2	1	-	-
12	8500726		O-ring, 0.239 x .070, Buna-N (Not supplied in later assemblies of this type)	2	1	-	-
13	8519183	⊗	Tube, Nylon, .25 x .035 (Replaced by 3560897)	a/r	a/r	a/r	a/r
	3560897		Hose, Nylon, Natural, 1/4 OD	a/r	a/r	a/r	a/r
14	1401141	⊗	Bushing, Hex, Galv, 1/4 x 1/8	2	-	-	-
15	1400240	⊗	Elbow, Street, 90 Deg, Galv, 1/8	-	1	-	-
16	8540146	⊗	Manifold Assy, Oiler (Includes items 17-19)	1	-	-	-
17	8540117	⊗	Manifold, Oiler	1	-	-	-
18	1400940		Plug, Sq Hd, Galv, 1/8	2	-	-	-
19	3554087		Connector, Push, 1/4 x 1/8 NPT	3	1	1	1
	8540123		Adapter, 1/8 OD Tube x 1/8 NPT (Includes 1 of item 20)	3	1	-	-
20	8540038		Nut, Brass, w/Sleeve	5	7	-	-
21	8540122	⊗	Bracket, Mounting, Manifold	1	-	-	-
22	8511924	⊗	MSCR, PNH, M5 x 8 MM (Older pumps require 1181198)	2	-	-	-
	1181198	⊗	MSCR, RDH, 10-24 x 3/8 ZP	2	-	-	-
23	8540147	⊗	Tube Assy, Oil-Feed (Includes items 24 thru 27 & 6' of item 13)	1	-	-	-
24	8540131	⊗	Tube Assy, Aux Oil Flow, w/Stop	1	-	-	-
25	8540129	⊗	Bushing, PVC, 2-Hole, 3/4 NPT	1	-	-	-
	8516140 ¹	⊗	(n/s) Kit, Bulkhead Fitting (Includes items 26 & 26a)	1	-	-	-
26	1917502		Conn, Str-RF, .19-30,PG9	1	-	-	-
26a	1917561		Connector, Dome,Nut,PG9	1	-	-	-
27	8540132	⊗	Union, Brass, 1/4 x 1/4 Tube (Includes 2 of item 20)	1	-	-	-
28	8540135		Filter, Oil, Spin-On	-	1	-	-
29	8540084	⊗	Head, Filter, w/Bypass	-	1	-	-
30	8540128	⊗	Bracket, Filter-Head	-	1	-	-
31	8519354	⊗	Bracket, Mounting, Oil-Filter	-	1	-	-
32	1401118		Bushing, Hex, Galv, 1/2 x 1/4	-	2	-	-
33	8540074	⊗	Adapter, 1/8 OD Tube x 1/4 NPT (Includes 1 of item 20)	-	3	-	-
34	8540041	⊗	Valve, Shut-off	-	1	-	-
35	8540133	⊗	Adapter, 1/4 OD Tube x 1/4 Hose (n/s)	-	1	-	-
36	8540043	⊗	Spigot, Pushbutton	-	1	-	-
37	4012220		Clamp, Hose, SS, #8, .44-1.00	-	2	-	-
38	8507400		Hose, Milk, Plastic, .56 ID	-	a/r	-	-
39	8540104	⊗	Adapter, 5/8 Hose x 1/2 NPT	-	1	-	-
40	8540036	⊗	Elbow, Brass, 1/4 Tube x 1/8 NPT (includes 1 of item 20)	-	2	-	-
41	8510417		Clamp, Tube	-	2	-	-
42	1400903	⊗	Plug, Sq Hd, Galv, 3/4	-	1	-	-
43	8540118	⊗	Label, Instructions, Reclaimer	-	1	-	-
44	1410909	⊗	Plug,Sq Hd,BI,3	-	1	-	-
45	4022249	⊗	Label, Danger, Hot Surface	-	1	-	-
46	1401138	⊗	Bushing, Hex, Galv, 3 x 2	-	1	-	-
47	1401338	⊗	Reducer, Galv, 3 x 2	-	1	-	-
48	8503716		Oil, Vac-Pump, 5 Gal Pail (Customer supplied)	-	a/r	-	-
			Kit, Repl, Oiler, DB/FR (Used to upgrade oiler assemblies on earlier FR-A & DB-2000 series vacuum pumps) (Includes 2 of items 2, 16, 21, 23 & hardware)	-	a/r	-	-
49	8540154	⊗	(n/s)				
50	8519193		Filter, In-Line, 1.22 x 4.25	-	-	1	1
51	8519194		Valve, Needle, 1/4 x 1/8 NPT, MOD	-	-	1	1
52	8519191		Body, Oiler	-	-	1	1

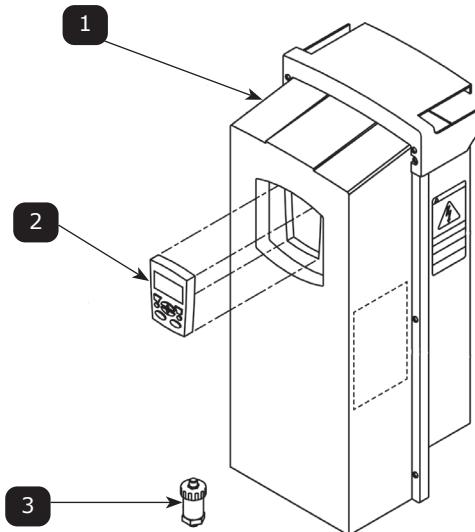
Variable Speed Vacuum Pump Controllers



ITEM	PART NO.	⊗=Obsolete n/s=Not Shown	DESCRIPTION	QTY REQ.	FUSE	Replaced By
-	-----		Cont Assy, Variable Speed Vac Pump	-	-	
1	8504120		Transducer, 0-30" HG, 4-20MA	1		
2	8516339	⊗	Contr, 7.5HP/3PH,3HP/1PH,230V	1	(30A)	
	8516340	⊗	Contr, 10HP/3PH,5HP/1PH,230V	1	(50A)	8512707
	8516341	⊗	Contr, 15HP/3PH,7.5HP/1PH,230V	1	(30A)	
	8516342	⊗	Contr, 20HP/3PH,10HP/1PH,230V	1	(80A)	8516342
	8516343	⊗	Contr, 30HP/3PH,15HP/1PH,230V	1	(160A)	8512710
	8516344	⊗	Contr, 7.5HP,5.5KW,3PH,500V	1		8512711
	8516345	⊗	Contr, 10HP,7.5KW,3PH,500V	1		
	8516346	⊗	Contr, 15HP, 11KW,3PH,500V	1		8512712
	8516347	⊗	Contr, 20HP, 15KW,3PH,500V	1		
	8516348	⊗	Contr, 30HP, 22KW,3PH,500V	1		8512714
3	8502566		Label, Warning, V-Speed Vac Pump	1		
4	8501367	(n/s)	Relay, 4PDT, 240V, 3A, Opti-Flo II	1		
5	8506293	(n/s)	Socket, Relay, HC	1		
6	-----		Literature, 9ES-785 (Installation Instructions)	a/r		
7	8502780	⊗	(n/s) Fuse, 30.00A, 700V, Fast	3		
	8502781	⊗	(n/s) Fuse, 50.00A, 700V, Fast	3		
	8502782	⊗	(n/s) Fuse, 80.00A, 700V, Fast	3		
	8502783	⊗	(n/s) Fuse, 100.00A, 700V, Fast	3		
	8502784	⊗	(n/s) Fuse, 160.00A, 700V, Fast	3		
8	8504000	⊗	Keypad, ACS-600, CDP311	1		
	8504001		Keypad, ACS-600, CDP312	1		
9	8509295	(n/s)	Filter Kit, EMI, 3 Phase, 12 GA	1		
	8509296	⊗	(n/s) Filter Kit, EMI, 1 Phase, 12 GA	1		
	8509297	(n/s)	Filter Kit, EMI, 1 Phase, 8 GA	1		
	8509298	(n/s)	Filter Kit, EMI, 3 Phase, 8 GA	1		
	8509299	(n/s)	Filter Kit, EMI, 1 Phase, 8 GA	1		
	8509300	(n/s)	Filter Kit, EMI, 3 Phase, 4 GA	1		
	8509301	(n/s)	Filter Kit, EMI, 1 Phase, 4 GA	1		
10	8508615	⊗	Switch, Pushbutton, 2 Position	1		
11	8508616	⊗	Block, Contact, NC	1		
12	8508617	⊗	Block, Contact, NO	1		
13	8509341	⊗	Label, Variable Speed-Constant	1		
14	8508636	⊗	Label, Controller, ACS600	1		
15	8509312	(n/s)	Knockout Punch, PG29	a/r		
	8509313	(n/s)	Knockout Punch, PG36	a/r		

Variable Speed Drive Control Assemblies, ACS 550

SECTION A	PAGE 23
EFFECTIVE: 2/29/12	

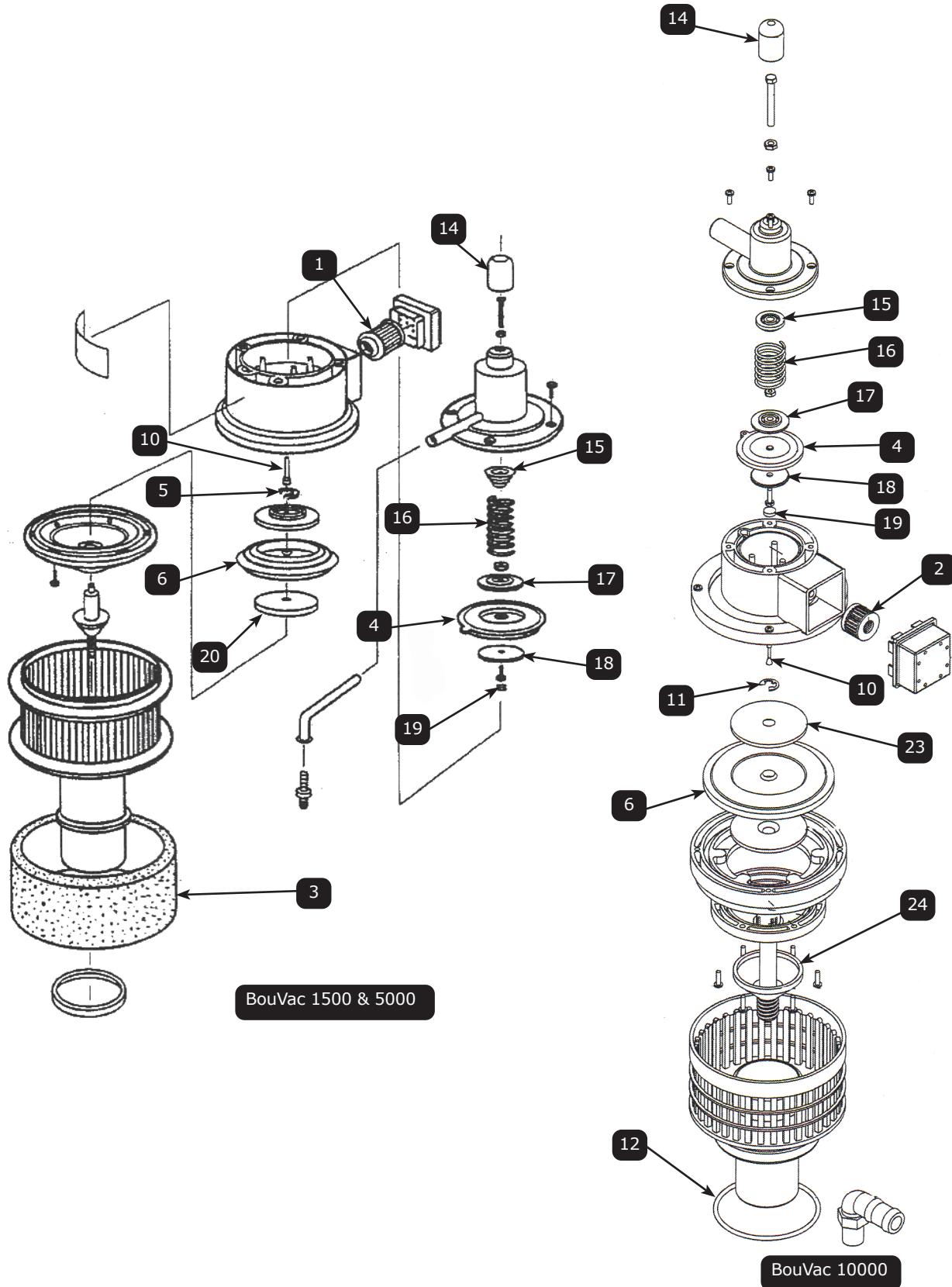


ITEM	PART NO.	⊗=OBSOLETE n/s=NOT SHOWN	DESCRIPTION	QTY REQUIRED (a/r=AS REQUIRED)									
	8512715		Control Assy, 10hp/3ph, 5hp/1ph, 230V	2715									
	8583135		Control Assy, 10hp/3ph, 600V, ACS550		3135								
	8512716		Control Assy, 15hp/3ph, 7.5hp/1ph, 230V		2716								
	8583136	⊗	Control Assy, 15hp/3ph, 600V, ACS550		3136								
	8512717		Control Assy, 20hp/3ph, 10hp/1ph, 230V		2717								
	8512718		Control Assy, 30hp/3ph, 15hp/1ph, 230V		2718								
	8512719		Control Assy, 10hp/3ph, 500V, ACS550		2719								
	8512720		Control Assy, 15hp/3ph, 500V, ACS550		2720								
	8512721		Control Assy, 20hp/3ph, 500V, ACS550		2721								
	8512722		Control Assy, 30hp/3ph, 500V, ACS550		2722								
1	8512707		Control, 10hp/3ph, 5hp/1ph, 230V, ACS	1	-	-	-	-	-	-	-	-	-
	8583133		Control, 10hp, 3ph, 600V, ACS550	-	1	-	-	-	-	-	-	-	-
	8512708		Control, 15hp/3ph, 7.5hp/1ph, 230V	-	-	1	-	-	-	-	-	-	-
	8583134		Control, 15hp/3ph, 600V, ACS550	-	-	-	1	-	-	-	-	-	-
	8512709		Control, 20hp/1ph, 230V	-	-	-	-	1	-	-	-	-	-
	8512710		Control, 30hp/3ph, 15hp/1ph, 230V	-	-	-	-	-	1	-	-	-	-
	8512711		Control, 10hp/3ph, 500V, ACS550	-	-	-	-	-	-	1	-	-	-
	8512712		Control, 15hp/3ph, 500V, ACS550	-	-	-	-	-	-	-	1	-	-
	8512713		Control, 20hp/3ph, 500V, ACS550	-	-	-	-	-	-	-	-	1	-
	8512714		Control, 30hp/3ph, 500V, ACS550	-	-	-	-	-	-	-	-	-	1
2	8512732		Keypad, Control, VFD, ACS-550	1	1	1	1	1	1	1	1	1	1
3	8504120 ¹		Transducer, 0-30 in. Hg, 4-20 MA	1	1	1	1	1	1	1	1	1	1
4	1917532 ¹	n/s	Conn, Str-Rlf, .27-.46, ½ NPT	1	1	1	1	1	1	1	1	1	1
5	1917657 ¹	n/s	Connector, Therm Strip, 4-Pos	1	1	1	1	1	1	1	1	1	1
6	3554830 ¹	n/s	Lubricant, Tube, 4CC	1	1	1	1	1	1	1	1	1	1
7	8501367 ¹	n/s	Relay, 4 PDT, 240V, 3A, Opti-Flo II	1	1	1	1	1	1	1	1	1	1
8	8506293 ¹	n/s	Socket, Relay, HC	1	1	1	1	1	1	1	1	1	1
9	8502127	n/s	Transducer Assy (Includes Items 3 thru 8)	1	1	1	1	1	1	1	1	1	1
10	8509295 ¹	n/s	Filter Kit, Cow ID, 3ph, 12 Ga	-	1	-	-	-	-	1	-	-	-
	8509296 ¹	⊗	Filter Kit, Cow ID, 1ph, 12 Ga	1	-	-	1	-	-	-	-	-	-
	8509297 ¹	n/s	Filter Kit, Cow ID, 1ph, 8 Ga	-	-	1	-	-	-	-	-	-	-
	8509298 ¹	n/s	Filter Kit, Cow ID, 3ph, 8 Ga	1	-	-	-	-	-	-	1	1	-
	8509299 ¹	n/s	Filter Kit, Cow ID, 1ph, 8 Ga	-	-	-	-	1	-	-	-	-	-
	8509300 ¹	n/s	Filter Kit, Cow ID, 3ph, 4 Ga	-	-	1	-	1	1	-	-	-	1
	8509301 ¹	n/s	Filter Kit, Cow ID, 1ph, 4 Ga	-	-	-	-	-	1	-	-	-	-
11	8509312 ¹	n/s	Knockout Punch, PG29	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r
	8509313 ¹	n/s	Knockout Punch, PG36	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r	a/r

Note:

1. Items not included with Control Assemblies.

BouVac 1500, 5000, 10000 Vacuum Regulator

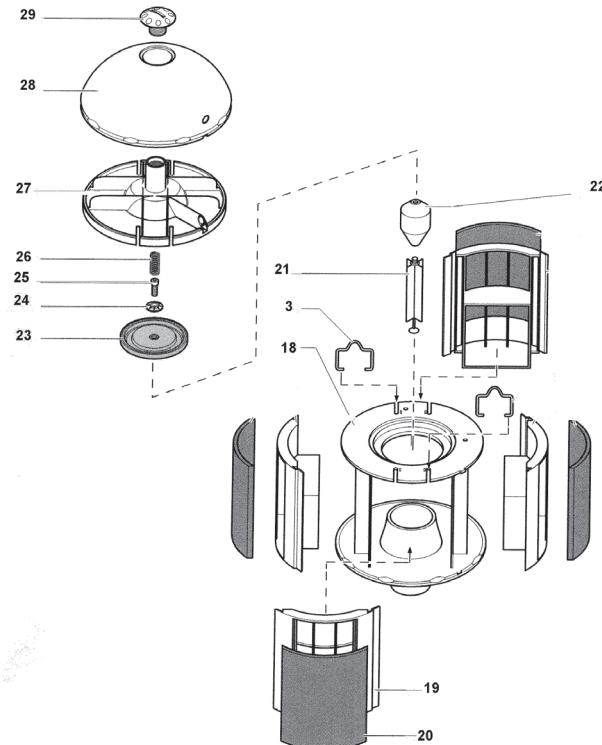
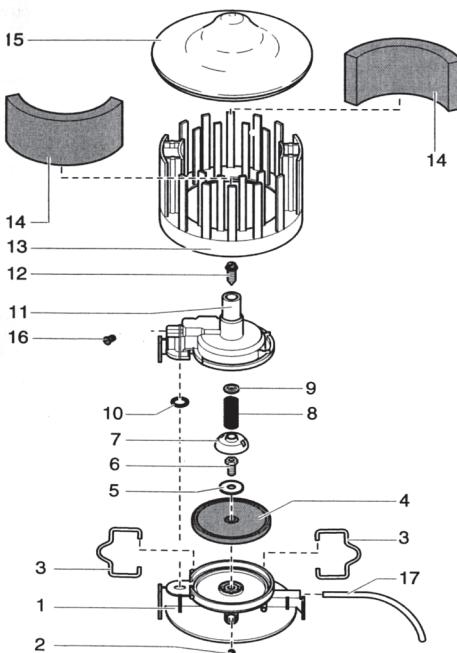


BouVac 1500, 5000, 10000 Vacuum Regulator (Cont.)

SECTION A	PAGE 25
EFFECTIVE: 3/15/18	

ITEM	PART NO.	DESCRIPTION	QTY REQUIRED (a/r=As Required)		
	8584191	Regulator, Vac, BouVac 1500	4191		
	8584192	Regulator, Vac, BouVac 5000		4192	
	8584193	Regulator, Vac, BouVac 10000			4193
1	8584194	Filter, Cont, BV1500-5000, 6 pack	a/r	a/r	-
2	8584345	Filter, Cont, BV10000, 5 pack, BM	-	-	a/r
3	8584196	Filter, Foam, BV1500ont-5000, 6 Pack	a/r	a/r	-
4	-----	Diaphragm A, Upper	1	1	1
5	-----	C-Clip	1	1	-
6	-----	Diaphragm B, Lower	1	1	1
7	8584197	n/s Kit, Rebuild, Min, BV1500, Reg <i>(Includes one each of Item #1, 3, 4, 5 & 6)</i>	1	-	-
8	8584198	n/s Kit, Rebuild, Min, BV5000, Reg <i>(Includes one each of Item #1, 3, 4, 5 & 6)</i>	-	1	-
9	8584199	n/s Kit, Rebuild, Min, BV10000, Reg <i>(Includes one each of Item #2, 4, 6, 10, 11 & 12)</i>	-	-	1
10	-----	Valve, Pilot, Magnetic, SS	-	-	1
11	-----	Retaining Clip E, 9MM, SS	-	-	1
12	-----	O-Ring, #26, 1/8 x 3-1/4, 3-1/2	-	-	1
13	8584200	n/s Kit, Rebuild Maj, BV1500, Reg <i>(Includes one each of Items 1, 4-6, 10, 14-16, 18-19 & two of 3, 20)</i>	1	-	-
14	-----	Cap, Rubber	1	1	1
15	-----	Spring Holder	1	1	1
16	-----	Spring	1	1	1
17	-----	Center Disk A	1	1	1
18	-----	Center Disk B	1	1	1
19	-----	Permanent Magnetic	1	1	1
20	-----	Check Valve Assembly	2	2	2
21	8584201	n/s Kit, Rebuild, Maj, BV5000, Reg <i>(Includes one each of Items 1, 4-6, 10, 14-16, 18-19 & two of 3, 20)</i>	-	1	-
22	8584202	n/s Kit, Rebuild, Maj, BV1000, Reg <i>(Includes one each of Items 2, 4, 6, 10-19, 23 & 24)</i>	-	-	1
23	-----	Center Disk C	-	-	1
24	-----	Valve, Main	-	-	1

Dari-Vac 159 & 106 Vacuum Regulators



ITEM NO.	PART NO.	⊗=OBSOLETE n/s=NOT SHOWN	DESCRIPTION	QTY REQUIRED (a/r=AS REQUIRED)				
8510270	⊗		Regulator Assy,Dari-Vac 159	270				
8510346	⊗		Kit,Regulator,Dual,Dari-Vac 159		346			
8510345			Controller,Remote,Dari-Vac 159		345			
8511124	⊗		Regulator Assy,Dari-Vac 106		124			
8511146	⊗		Kit,regulator,Dual,Dari-Vac 106		146			
8511145	⊗		Controller,Remote,Dari-Vac 106		145			
1	8510347	⊗	Body,Bottom,Servo	1	1	-	1	1
2	8510348	⊗	Screw,Calibrate,Servo	1	1	-	1	1
3	8510349	⊗	Retainer,Diaphragm	4	8	2	4	8
4	8510350		Diaphragm,Servo	1	1	-	1	1
5	8510351		Plate,Diaphragm,Servo	1	1	-	1	1
6	8510352	⊗	Screw,Control Cone,Servo	1	1	-	1	1
7	8510353	⊗	Cone,Control,Servo	1	1	-	1	1
8	8510354	⊗	Spring,Adjust,Servo	1	1	-	1	1
9	8510355	⊗	Washer,Adjusting Spring,Servo	1	1	-	1	1
10	8510356		O-ring,.237 x .103,Silicone,Servo	1	1	-	1	1
11	8510357	⊗	Body,Upper,Servo	1	1	-	1	1
12	8510358	⊗	Screw,Adjust,Servo	1	1	-	1	1
13	8510359	⊗	Housing,Filter,Servo	1	1	-	1	1
14	8510360		Filter,Foam,Servo	2	2	-	2	2
15	8510361	⊗	Cover,Top,Servo	1	1	-	1	1
16	8510362	⊗	Plug,Nipple,Servo	1	1	-	1	1
17	8516010	⊗	Hose,Polye,.25 x .04 x 100'	a/r	a/r	a/r	a/r	a/r
18	8510363	⊗	Body,159,Valve	1	2	1	-	-
	8511126	⊗	Body,106,Valve	-	-	-	1	2
19	8510364	⊗	Housing,Filter,Valve	4	8	4	4	8
20	8510365		Filter,Foam,Valve	4	8	4	4	8
21	8510366		Stabilizer,159,Valve	1	2	1	-	-
	8511127		Stabilizer,106,Valve	-	-	-	1	2
22	8510367		Valve,Cone,Valve	1	2	1	1	2
23	8510368	⊗	Diaphragm,Valve	1	2	1	1	2
24	8510369	⊗	Plate,Diaphragm,Valve 159	1	2	1	-	-
	8510351		Plate,Diaphragm,Valve 106	-	-	-	1	2
25	8510370	⊗	Cscr,Sch,M9x15,Chrome-Plated	1	2	1	1	2
26	8510371	⊗	Spring,Stabilizer,Valve	1	2	1	1	2
27	8510372	⊗	Body,Upper,Valve	1	2	1	1	2
28	8510373	⊗	Cover,Upper,Valve 159	1	2	1	-	-
	8511129	⊗	Cover,Upper,Valve 106	-	-	-	1	2
29	8510374	⊗	Plug,Top,Threaded,Valve	1	2	1	1	2
30	8510946		Kit, Repair, DARI-VAC 159/106	a/r	a/r	-	a/r	a/r
			(Includes one each of Items 4, 10, 23; two each of Item 14, four each of Item 20)					

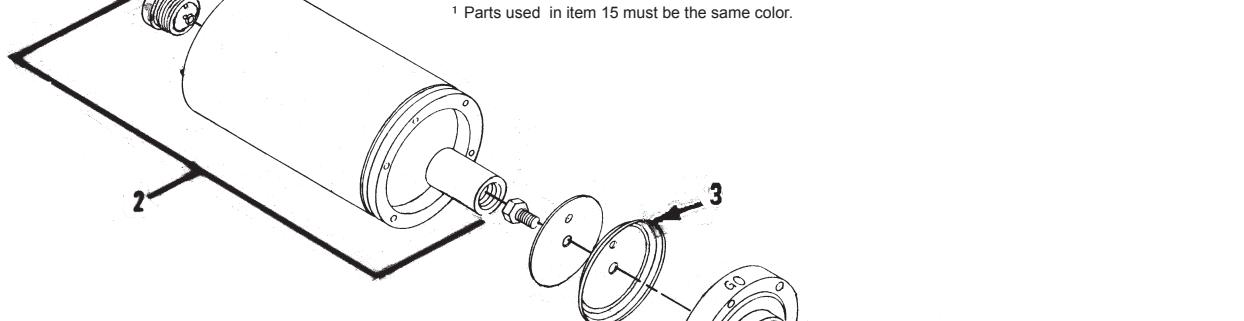
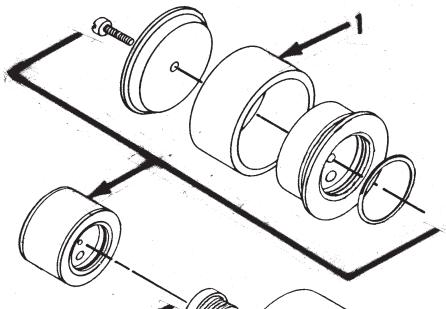
**Sentinel Vacuum Regulators Models 100,
350, 500 & Sentinel Mark II Regulator**

SECTION A	PAGE 27
EFFECTIVE: 4/1/01	

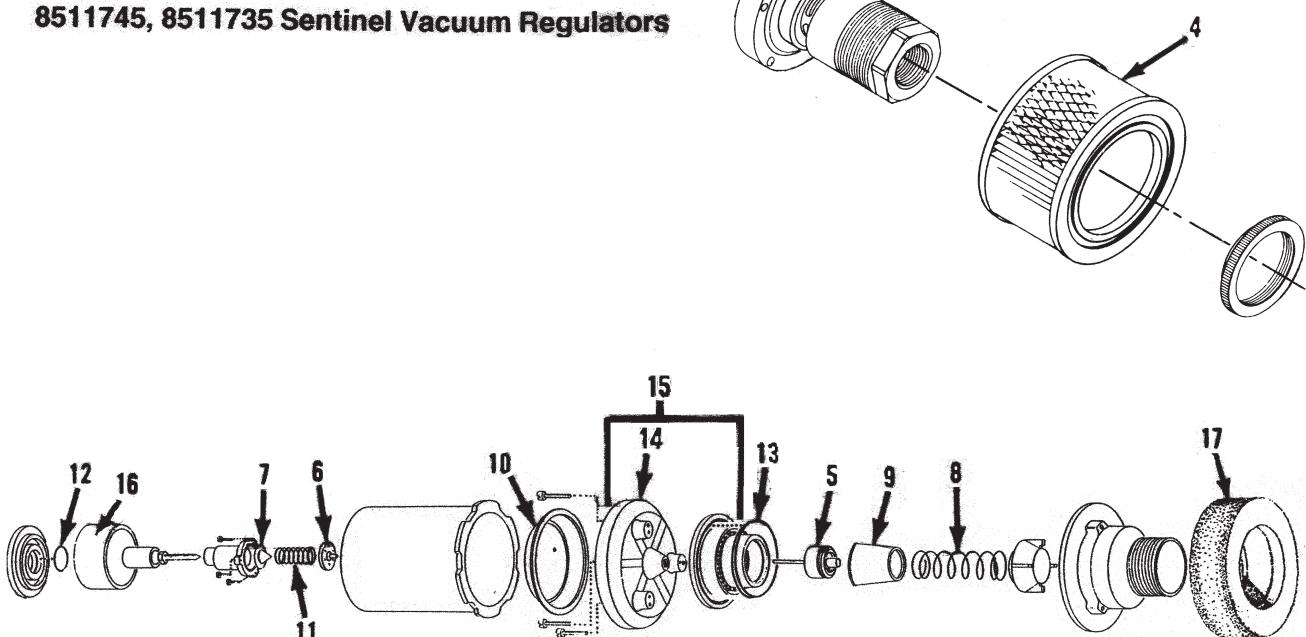
ITEM	PART NO.	⊗=Obsolete n/s=Not Shown	DESCRIPTION	QTY REQUIRED (a/r=As Required)		
	8511745	⊗	Regulator, Vac, Sentinel, 100 (shown)	1745		
	8511735	⊗	Regulator, Vac, Sentinel, 350		1735	
	8517673	⊗	Regulator, Vac, Sentinel, 500		7673	
	8515616	⊗	Regulator, Vac, Sentinel, Mark II			5616
1	8511739		Filter, Cartridge, 348.33	1	1	-
	8515759	⊗	Filter, Dome, Top, Sentinel MK II	-	-	1
2	8511738		Aneroid Assy, 348.35	1	1	-
3	8511746		Diaphragm, 353.6	1	-	-
	8511736		Diaphragm, 348.9	-	1	-
4	8511747	⊗	Filter, Air, 4.38 Dia x 2.38	1	-	-
	8511740		Filter, Air, 6.50 Dia x 3.00	-	1	-
	8515758	⊗	Filter, Air, Main, Sentinel MK II	-	-	1
5	8516011	⊗	Pin Assy, Push, Poppet, Mark II	-	-	1
6	8516012		Diaphragm, Dome, Mark II	-	-	1
7	8516013	⊗	Plate, Wobble, Mark II	-	-	1
8	8516014	⊗	Spring, Closing, Mark II	-	-	1
9	8516015		Seal, Rolling, Mark II	-	-	1
10	8516016		Diaphragm Assy, Mark II	-	-	1
11	8516017	⊗	Spring, Adjusting, Mark II	-	-	1
12	8516018	⊗	O-ring, Mark II	-	-	1
13	8516019	⊗	Seal, Outlet, Mark II	-	-	1
14	8516020		Flange Assy, Mark II	-	-	1
15 ¹	8502364		Kit, Flange & Flow ring, Mark II	-	-	1
16	8508611		Filter, Dome, Mark II	-	-	1
17	8508612		Filter, Main, Mark II	-	-	1

Note:

1 Parts used in item 15 must be the same color.



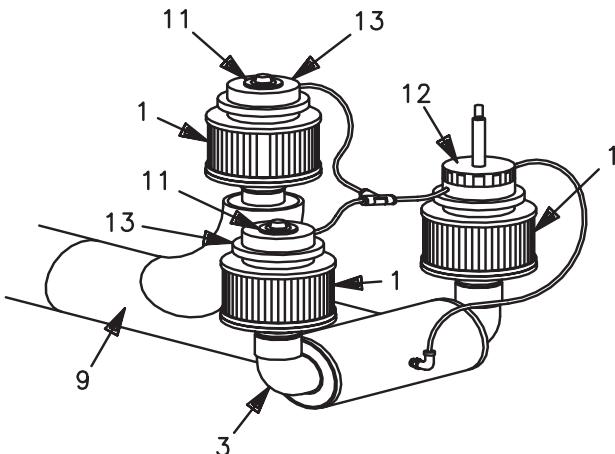
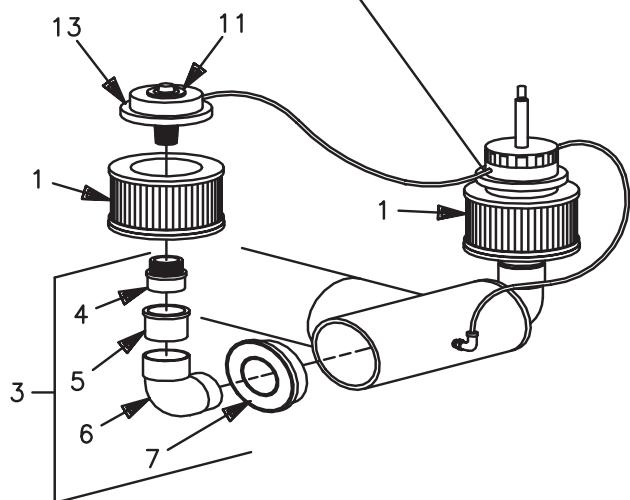
8511745, 8511735 Sentinel Vacuum Regulators



8515616 Sentinel Mark II Regulator

BVR-500 Vacuum Regulators

NOTE: Remote hose connects to brass fitting on master



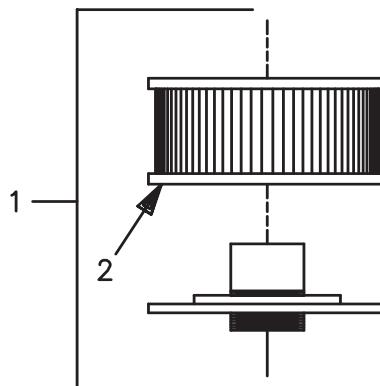
ITEM	PART NO.	⊗=Obsolete n/s=Not Shown	DESCRIPTION	QTY	RQD
---	8515868	⊗	Kit, BVR-500, Regulator & Filter	5868	
---	8515894	⊗	Kit, BVR-500, w/2 Remotes	5894	
1	8515851		Kit, Bou-Vac, Filter (Includes Adapter, Disk & item 2)	2	3
2	8511740		Filter, Air, 6.50 Dia x 3.00	2	3
3	8515869		Kit, Fitting (Includes items 8, 14 & two each of items 4-7)	1	1
4	8515870		Adapter, PVC, SPXM, 1½ x 1¼	2	3
5	8515871		Bushing, Flush, PVC, 2 x 1½	2	3
6	8515872		Elbow, 90 Deg, PVC, Sch 40, 2"	2	2
7	8515873		Bushing, Flush, PVC, 4 x 2, SPXH	2	3
8	8515874		Tee, PVC, Sch 40, 4"	1	1
9	8518663		Tee, PVC, Sch 40, 4 SxSxS	-	1
10	8515893	⊗ (n/s)	Mscr, Pnh, Brs, M5 x 10mm	1	1
11	8515892		Gasket, Remote	1	1
12	----- ¹		Regulator Assy, Master	1	1
13	----- ²		Regulator Assy, Remote	1	-
14	-----		Literature 9E-643 (Installation and Operation Instructions)	ref	ref

Note:

1. Master Regulator Assy uses same repair parts as BVR-215 Regulator Assy (page A-34), except the master chamber (item 22) on the BVR-215 Regulator Assy cannot be used on the Master Regulator Assy.

2. Remote Regulator Assy uses same repair parts as BVR-215 Regulator Assy (page A-34), except:

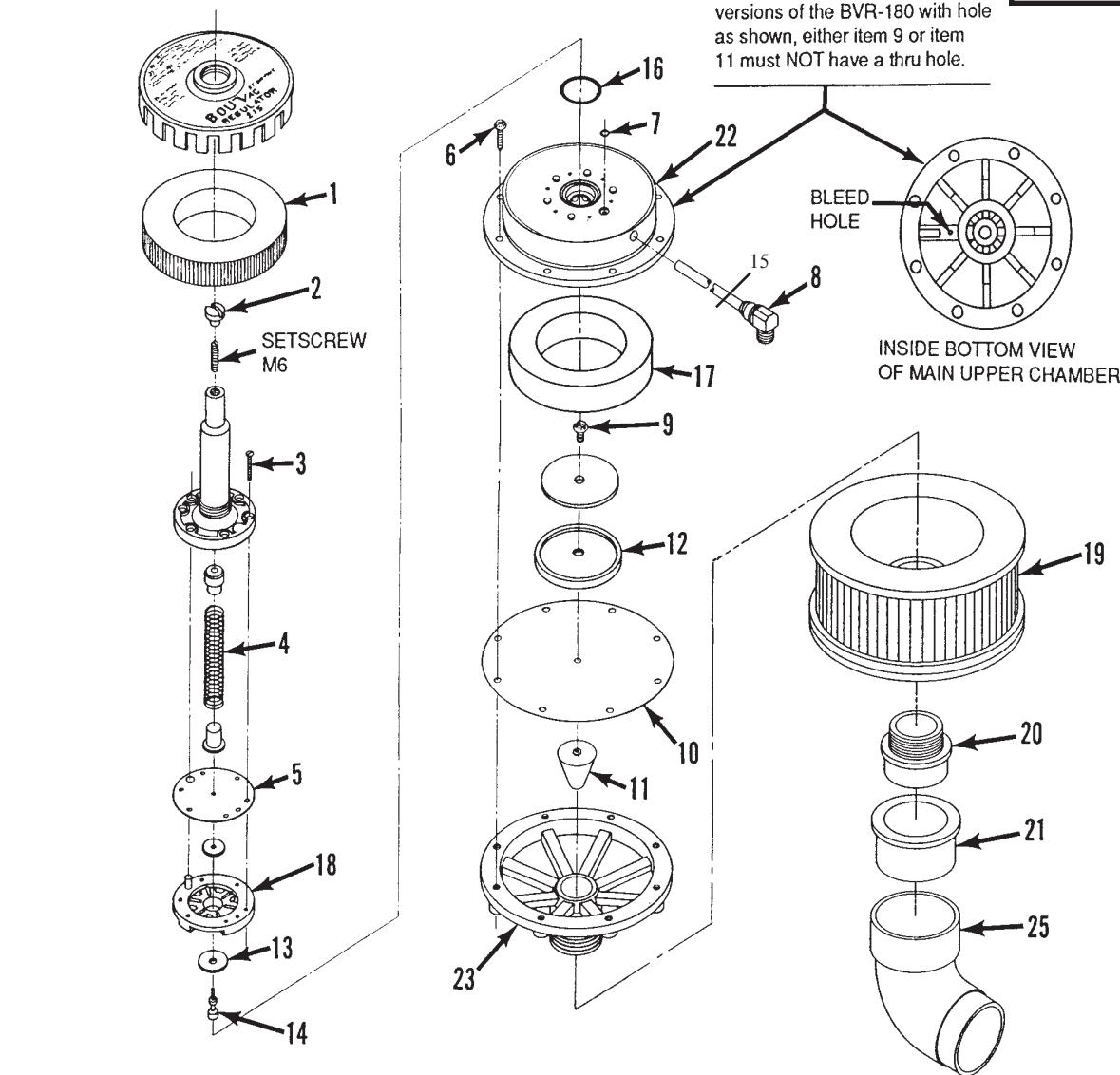
- items 1, 2, 4, 7, 8, 13, 14, 16, 18 & 22 (from page A-34).
- brass screw (item 10) is used instead of the screw with hole (item 9) on the BVR-215.
- remote gasket (item 11) is used instead of the pilot diaphragm (item 5) on the BVR-215.



BVR-180 & 215 Vacuum Regulators

SECTION A
EFFECTIVE: 7/20/05

PAGE 29



NOTE: When servicing earlier versions of the BVR-180 with hole 16 as shown, either item 9 or item 11 must NOT have a thru hole.

ITEM	PART NO.	DESCRIPTION	QTY REQUIRED (a/r=AS REQUIRED)		
-	8511998	Regulator Assy, Vac, BVR-180	998		
-	8511880	Regulator Assy, Vac, BVR-215	880		
-	8516009	Kit, Rgltr & Filter, BVR-215 (shown)	009		
1	8511947	Filter, Air, 3.75 Dia x 0.69	1	1	1
2	8511925	Screw, M6, Nylon	1	1	1
3	8511923	Screw, FLH, M3 x 20 MM	6	6	6
4	8511943	Spring, Compr, .500-.051 3.690	1	1	1
5	8511945 ¹	Diaphragm, Pilot, Gray	1	1	1
	8516074	Diaphragm, Pilot, H.D. (Replaces by 8511945 and 8511963)	1	1	1
	8511963	Diaphragm, Pilot, Black	1	1	1
6	8511922	TFSCR, PNH, Z10, 5 MM x 16 MM	8	8	8
7	8511920	O-ring, 3 MM x 1.5 MM, Buna-N	1	1	1
8	8511921	Tube Assy, Vac-Regulator (Includes 3 feet of item 15)	1	1	1
9	8511928	Screw, PNH, M5 x 10 MM, w/Hole	1	1	1
10	8519048	Diaphragm, Main, Bou-Vac	1	1	1
11	8511918	Valve, Main, Vac-Regulator	1	1	1
12	8511929	Washer, Backup, Diaphragm, Plstc	1	1	1
13	8511881	Disk, Valve	1	1	1
14	8511882	Valve, Pilot	1	-	-
15	8516010	Hose, Polye, .25 x .06 x 100 Ft	a/r	a/r	a/r

ITEM	PART NO.	DESCRIPTION	QTY REQUIRED (a/r=AS REQUIRED)		
-	8511998	Regulator Assy, Vac, BVR-180	998		
-	8511880	Regulator Assy, Vac, BVR-215	880		
-	8516009	Kit, Rgltr & Filter, BVR-215 (shown)	009		
16	8511919	Seal	1	-	-
	8511883	O-ring, 0.870 x .060	-	1	1
17	8511944 ²	Spring, Compr, 1.63-.063 1.75	1	-	-
	8511884	Ring, Sponge	-	1	1
18	8511926	Plate, Pilot Valve	1	-	-
	8511885	Plate, Pilot Valve	-	1	1
19	8515851	Kit, Bou-Vac Filter (Parts on page A-35)	-	-	1
20	8515870	Adapter, PVC, SPXM, 1½ x 1¼	-	-	1
21	8515871	Bushing, Flush, PVC, 2 x 1½	-	-	1
22	8511410	Chamber, Main, BVR-180/215	1	1	1
23	8511411	Base, Bou-Vac Rgltr	1	1	1
24	8511948	Kit, Repair, BVR-180/215 (Includes 1 each of items 1, 5, 7, 10 & both of item 16)	1	1	1
25	8515872	Elbow, 90 Deg, PVC, Sch 40, 2"	-	-	1
26	-----	Literature 9P-381 (Installation Instructions)	ref	ref	ref
27	-----	Literature 9P-382 (Owner Instructions)	ref	ref	ref

Note:

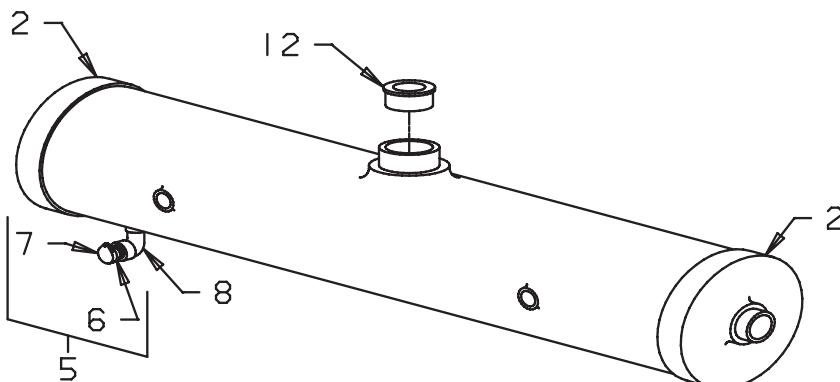
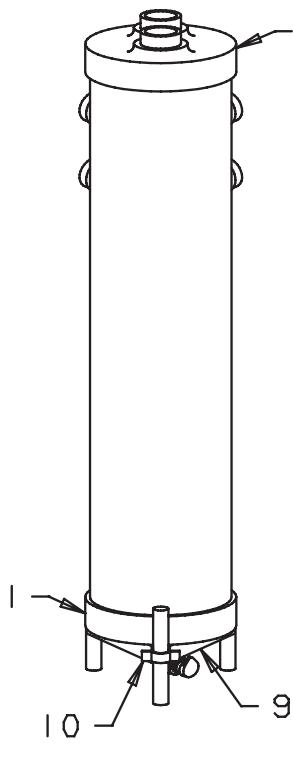
1. **Important:** Unless diaphragm is accurately centered during assembly, vacuum level may fluctuate.
2. This item is not required on later assemblies of BVR-180.

Distribution Tanks

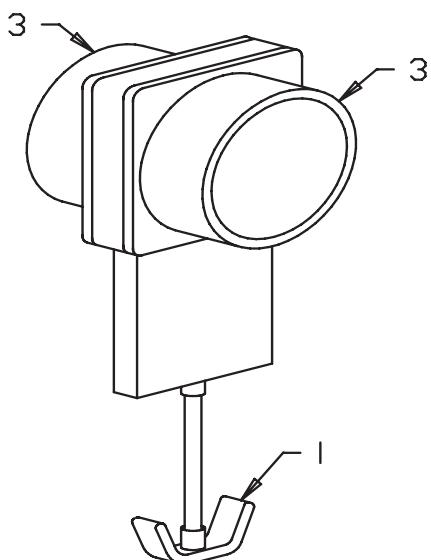
30 & 40-Gallon Vertical & Horizontal Tanks

ITEM	PART NO.	DESCRIPTION	QTY REQUIRED (a/r=AS REQUIRED)				
-	8500893	Tank, Distribution, PVC, 40 Gal, Horiz	893				
-	8519080	Tank, Distribution, PVC, 30 Gal, Horiz		080			
-	8519440	Tank, Distribution, PVC, 40 Gal, Vert			440		
-	8519081	Tank, Distribution, PVC, 30 Gal, Vert				081	
-	8508648	Tank, Distribution, 40 Gal, Horiz, 3 / 4"					648
-	8508649	Tank, Distribution, 40 Gal, Horiz, 4 / 6"					6149
1	8519084	Cap, End, DistTank, Bot, Vert	-	-	1	1	-
2	8519085	Cap, End, DistTank, Horiz, 40 Gal	2	-	-	-	-
	8519086	Cap, End, DistTank, Horiz, 30 Gal	-	2	-	-	-
3	8519087	Cap, End, DistTank, Top, Vert, 30Ga	-	-	-	1	-
	8519083	Cap, End, DistTank, Top, Vert, 40Ga	-	-	1	-	-
4	8506167	Label, Bou-Matic, 3.00 x 10.0 (not shown)	1	1	1	1	1
5	8505901	Valve Assy, Drain, 1-1/4 NPT (Includes items 6 & 7)	1	1	1	1	1
6	8505902	Body Assy, Drain-Valve	1	1	1	1	1
7	8505903	Flapper, Drain-Valve, Rubber	1	1	1	1	1
8	3553300	Elbow, 90 Deg, St, PVC, 1-1/4	1	1	1	1	1
9	8519442	Stand, Vertical Balance Tank	-	-	1	1	-
10	8510417	Clamp, Tube	-	-	3	3	-
11	-----	Literature 9P-392 (Installation & Maintenance Instructions)	-	-	ref	ref	-
12	8500894 ¹	Bushing, Rdcg, PVC, 6 x 4	1	-	-	-	1

Note: 1. Needed only on installations where a 4" line is connected to a tank with a 6" top outlet.



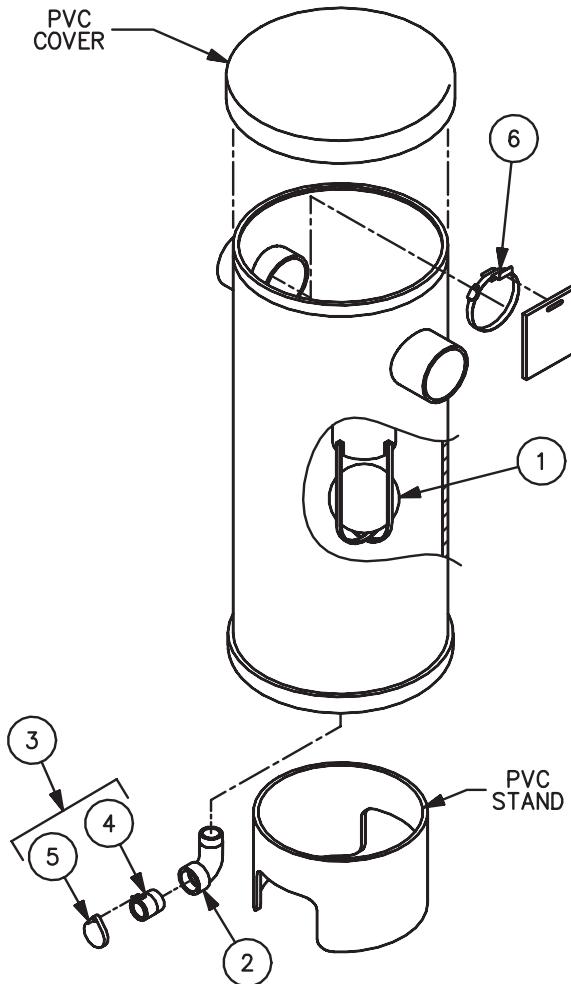
Gate Valves



ITEM	PART NO.	DESCRIPTION	QTY REQUIRED (a/r=AS REQUIRED)				
-	3554177	Valve, Gate, 1.5 In ID, White	177				
-	8517047	Valve, Gate, 2 In ID		047			
-	8517041	Valve, Gate, 3 In ID			041		
-	8507265	Valve, Gate, 4 In ID				265	
-	8516810	Valve, Gate, 6 In ID					810
1	8518180	Handle, Gate Valve	1	1	1	1	1
2	8518178	⊗ Kit, Seal, 2"Gate Valve (not shown)	-	a/r	-	-	-
	8518179	⊗ Kit, Seal, 3"Gate Valve (not shown) Both include the following: 2 Seals, 2 Nuts, 4 Bolts	-	-	a/r	-	-
3	8518181	⊗ Fitting, Flgd, 2"Gate Valve	-	2	-	-	-
	8518182	⊗ Fitting, Flgd, 3"Gate Valve	-	-	2	-	-

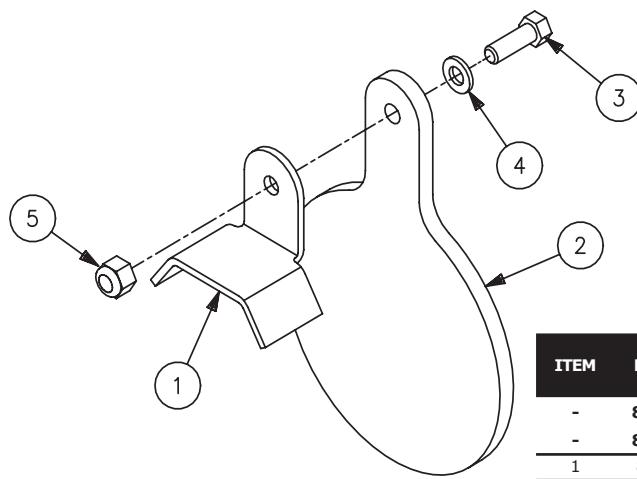
Interceptor

SECTION A	PAGE 31
EFFECTIVE: 5/1/09	



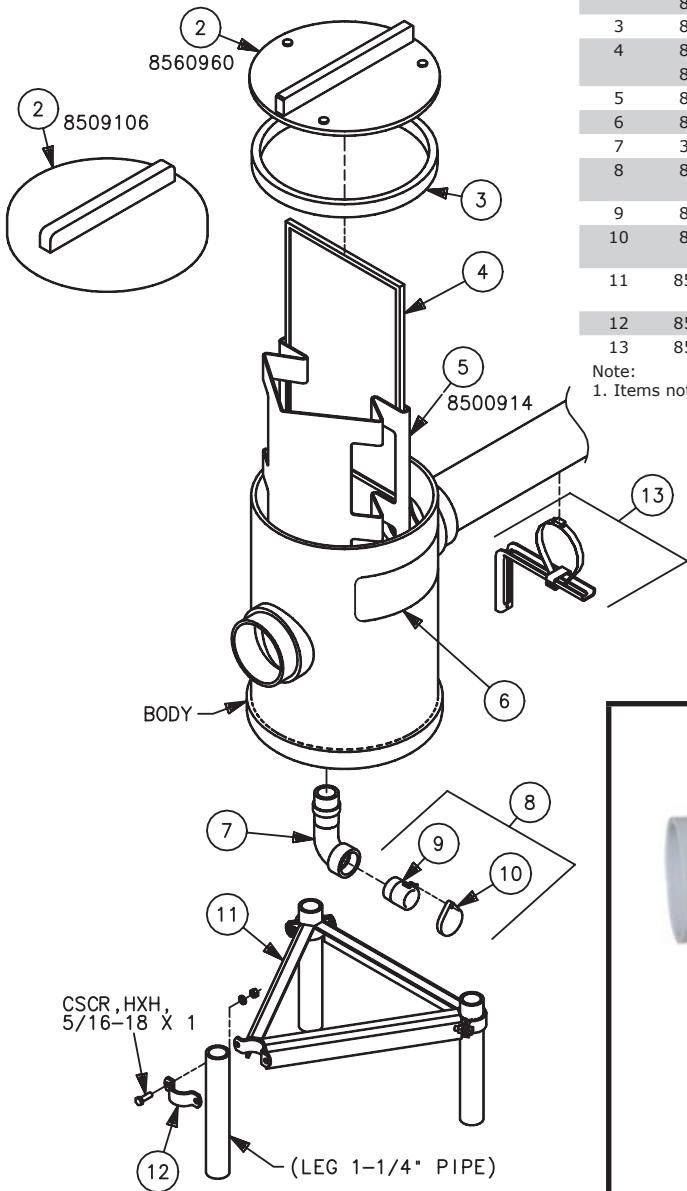
ITEM	PART NO.	<small>⊗=Obsolete n/s=Not Shown</small>	DESCRIPTION	NO. REQD.
8509548			INTERCEPTOR,4",W/STAND	548
1	8511180	⊗	Ball,Float,Plastic,5.00 dia	1
2	3553300		Elbow,90 Deg,St,PVC,1-1/4	1
3	8505901		Valve Assy,Drain,1-1/4 NPT (Includes items 4 & 5)	1
4	8505902		Body Assy,Drain-Valve	1
5	8505903		Flapper,Drain-Valve,Rubber	1
6	8509834		Pivot Assy,Flapper	1
7	8509833		Flapper,Check Valve	1

Exhaust Check Valve



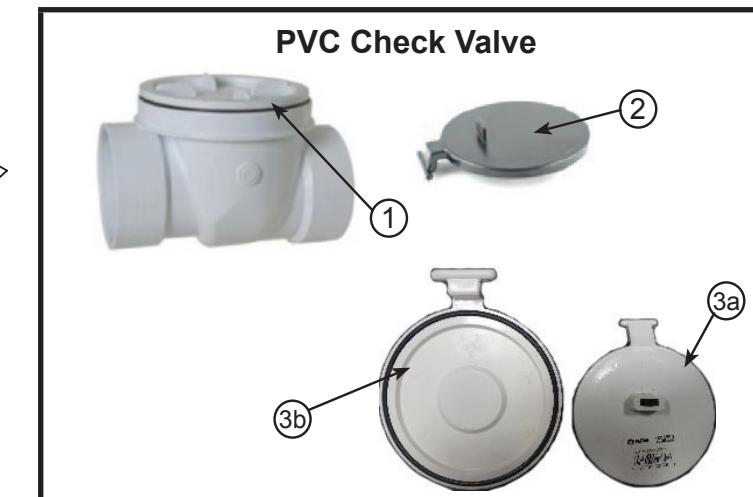
ITEM	PART NO.	<small>⊗=Obsolete n/s=Not Shown</small>	DESCRIPTION	NO. REQD.
-	8511316		Valve, Exhaust Check,2",Rubber	316
-	8511317		Valve, Exhaust Check,3",Rubber	317
1	8511462		Bracket,Mtg,Exhaust Valve	1 1
2	8511461		Flapper,Exhaust,Rubber	1 1
3	1094008		MCSR,HXH,SS,1/4-20 X 3/4	1 1
4	1208471		Washer,Plain,SS,1/4	1 1
5	1222352		Nut,Lock,SS,1/4-20	1 1
6	8501422		Clamp,Hose,SS,#44,1.38-3.25	1 -
7	8510105		Clamp,Hose,SS,#56,2.13-4.00	- 1

PVC Vacuum Filter



Note:

1. Items not included with vacuum filter.

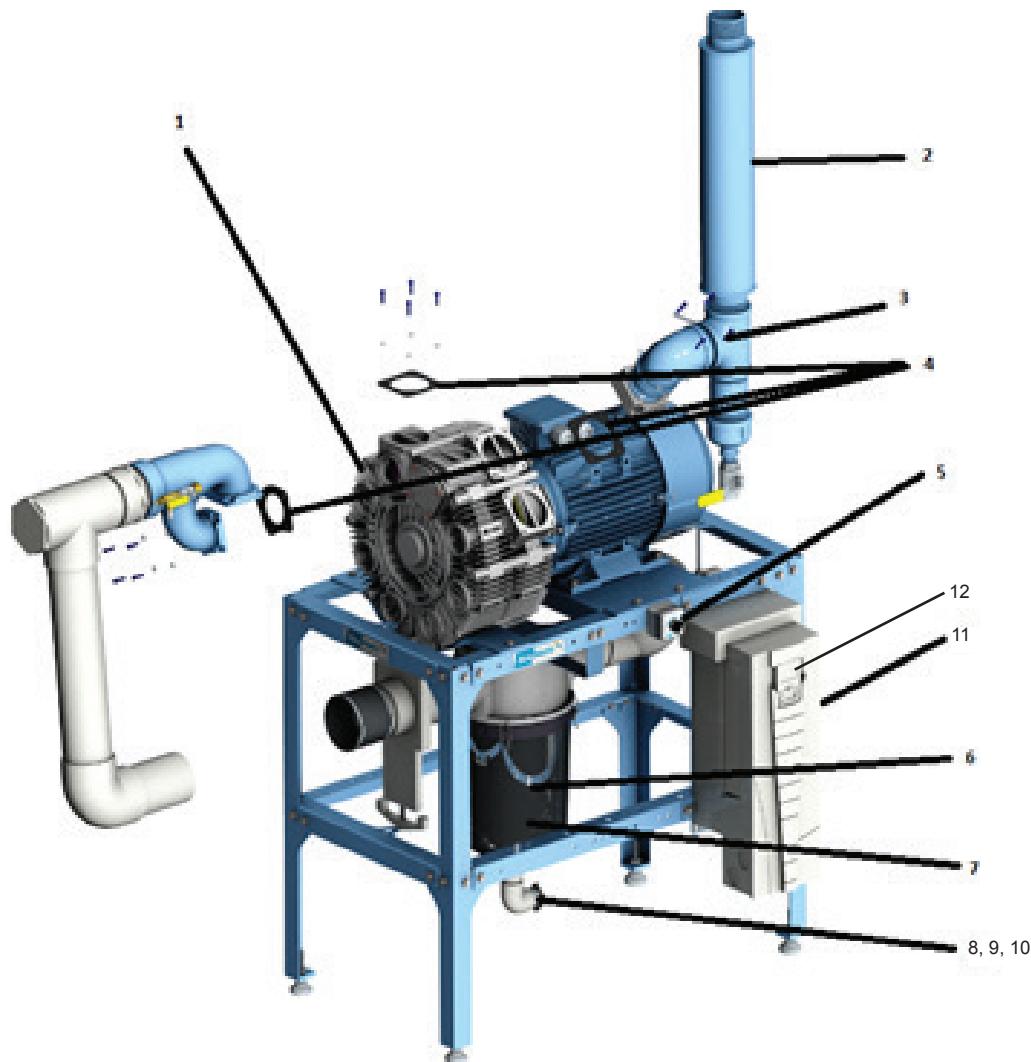


ITEM	PART NO.	⊗=Obsolete n/s=Not Shown	DESCRIPTION	NO. REQD.
-	14121	⊗	Check Valve, 2" PVC,CANPLAS	121
-	14124	⊗	Check Valve, 3" PVC,CANPLAS	124
-	8516075		Valve, Check, 3" PVC	075
-	8516076		Valve, Check, 4" PVC	076
-	8516077		Valve, Check, 6" PVC	077
1	8501500	⊗ (n/s)	O-Ring, 3.125 x .139	- - 1 - -
	8591550		O-Ring, Flapper 4", New Style	- - - 1 -
	8591551		O-Ring, Flapper 3", New Style	- - 1 - -
2	14121		Check Valve, 2" PVC,CANPLAS	- 1 - - -
3a	8501501		Flapper, Check Valve, 3"	- - 1 - -
3b	8501502		Flapper, Check Valve, 4"	- - - 1
4	8591548		Flapper, 3", New Style	- - 1 - -
	8591549		Flapper, 4", New Style	- - - 1



Airtech RGB

SECTION A	PAGE 33
EFFECTIVE: 11/27/17	



ITEM	PART NO.	⊗=Obsolete n/s=Not Shown	DESCRIPTION	NO. REQD.
-	8592037		BLOWER ASSY, 10HP,CENT	10 HP
-	8592036		BLOWER ASSY, 20HP,CENT	20 HP
1	8592033		BLOWER,10HP,CENT	1
	8592032		BLOWER,20HP,CENT	-
2	8592338		SILENCER, AIRSTAR RGB	1
3	8592336		SENSOR,TEMP, AIRSTAR RGB	1
4	8592334		GASKET,AXIAL, AIRSTAR RGB	2
5	8592337		SWITCH ASSY,FLUSH, AIRSTAR RGB	1
6	8592034		FILTER ASSY,2.5IN,CENT BLOWER	1
	8592040		FILTER ASSY,4IN,CENT BLOWER	-
7	8592035		ELEMENT,FILTER,2.5IN,CENT BLWR	1
	8592041		ELEMENT,FILTER,4IN,CENT BLOWER	-
8	8505901		VALVE ASSY,DRAIN,1-1/4 NPT (Includes items 9 & 10.)	1
9	8505902		BODY ASSY, DRAIN-VALVE	1
10	8505903		FLAPPER, DRAIN-VALVE, RUBBER	1 or 1
11	8512709		CONT,20HP/3PH,10HP/1PH,230V	1
	8512707		CONT,10HP/3PH,5HP/1PH,230V,ACS	-
	8512711		CONT,10HP/3PH,500V,ACS550	1
	8512713		CONT,20HP/3PH,500V,AC550	-
12	8512732 ¹		KEYPAD, CONTROL, VFD, ACS-550	1

Note: 1. Software 2-7 (or higher)